

Basic Data
Relating to the
National Institutes
of Health

NIH Data Book

1982

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U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES

Public Health
Service

National Institutes
of Health

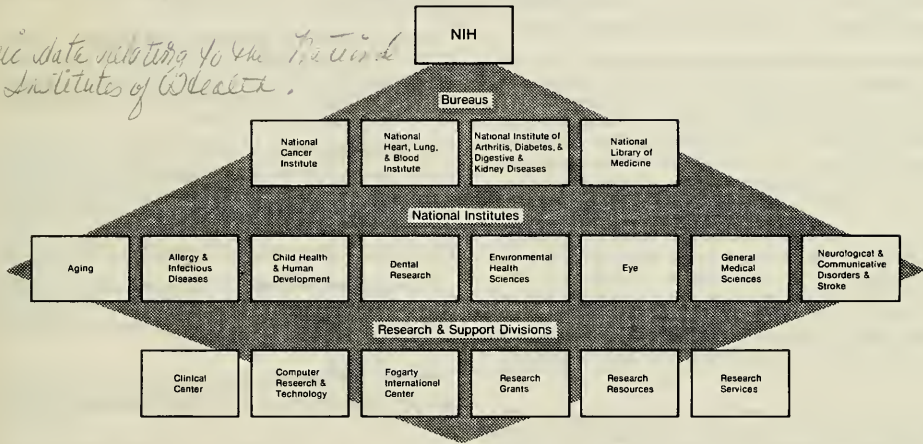
Prepared by the staffs of the
Office of Program Planning & Evaluation
and the
Division of Research Grants
NATIONAL INSTITUTES OF HEALTH

June 1982

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*Basic data relating to the National
Institutes of Health.*



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TECHNICAL NOTE

The *NIH Data Book* (Basic Data Relating to the National Institutes of Health) has been published annually since 1961. Single copies of the current issue are available at NIH information offices.

The booklet is prepared under the direction of the Chief, Program Analysis Branch, DPA, OPPE. Data are derived from NIH records and studies unless otherwise noted. DPA develops the data on national support for health R&D from annual surveys and other sources. The Statistics and Analysis Branch, DRG, compiles the data on NIH awards. The Division of Financial Management (OA) is the source of information on NIH obligations and appropriations. (See "Abbreviations," page 59.)

Programs that have been transferred out of NIH — NIMH, DRMP, DBS, and BHME — are excluded from all data except national and Federal time series. DRR, though located in BHME from 4/68 to 9/70, is always included with Institutes and Research Divisions. The transition quarter (see "TQ," page 60) is excluded throughout. The NIMH portion of GRS grants, which were administered by DRR, is included in all award data through 1974. (See "Chronology," page 52, for major organizational changes.)

"Health R&D" denotes medical and health-related projects, resources, and general support, but no training or construction. In health R&D series (pages 1-5), the NIH component contains certain items not classified as research in other tables, such as

cancer control, portions of NLM and direct operations, and foreign currency funds not directly appropriated to NIH.

All award data exclude scientific evaluation grants (\$11 million in FY 1981) and interagency agreements. Supplemental awards, unless noted, are only counted when the parent award is from prior years' funds, and such supplements if multiple are counted as one. See Table 27 for classification of research grants.

Differences between "obligations" (Tables 6-8) and "awards" (Tables 13-31) are caused by differences in treatment of certain items (cancer control, scientific evaluation, administering vs. funding I/RD compilations, etc.) in the accounting methods used by the various data sources. The largest difference reflects the handling of cancer control, which is identified in obligation tables but partially integrated in award presentations.

For mortality and morbidity, 1978 data are based on the Eighth Revision of the International Classification of Diseases; 1980 data, on the Ninth Revision. Comparability ratios are available from NCHS. See telephone numbers, pages 19-21.

Detail may not add to totals because of rounding and, where noted, because of data included in totals only. Historical data are often revised.

Leonore Wagner and Dorothy Boykin, editors
(301) 496-9291

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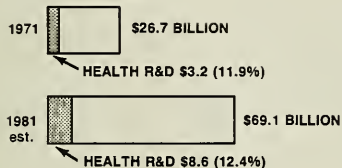
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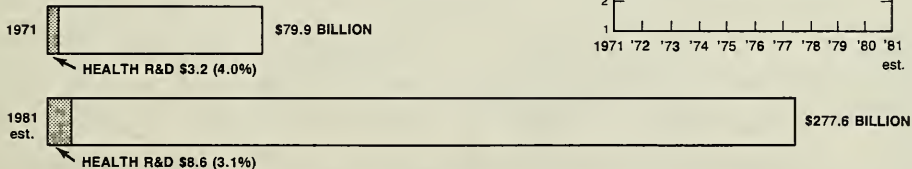
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Figure 1
NATIONAL HEALTH R&D, 1971 AND 1981, AS RELATED TO ...

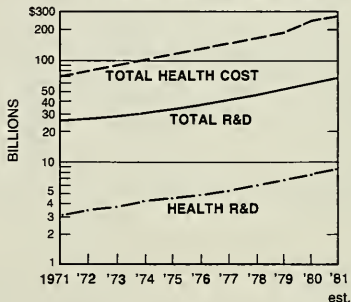
... TOTAL R&D COST*



... TOTAL HEALTH COST†



NATIONAL EXPENDITURES FOR HEALTH,
TOTAL R&D, AND HEALTH R&D, 1971-1981



* Source: NSF and NIH. † Source: HCFA, with adjustments of R&D (and therefore of totals) to conform to NIH data.

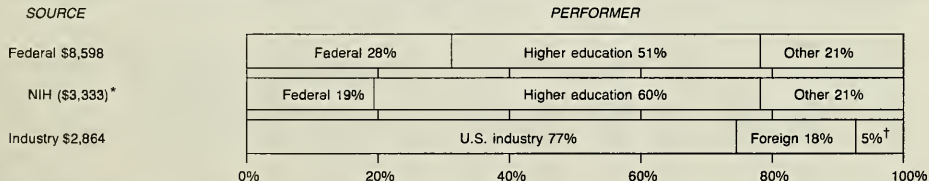
Table 1
NATIONAL SUPPORT FOR HEALTH R&D BY SOURCE OR PERFORMER, 1971-1982*
(Millions of Dollars)

Sector	1971	1972	1973	1974	1975	1976 est.	1977	1978 est.	1979	1980 est.	1981 est.	1982 est.
Total of A or B	\$3,168	\$3,536	\$3,750	\$4,443	\$4,701	\$5,107	\$5,621	\$6,279	\$7,128	\$7,942	\$8,598	\$9,253
<i>A BY SOURCE OF FUNDS</i>												
Government	2,075	2,375	2,470	3,008	3,118	3,371	3,734	4,197	4,736	5,196	5,405	5,523
Federal	1,877	2,147	2,225	2,754	2,832	3,059	3,396	3,811	4,321	4,723	4,898	4,983
NIH	(1,039)	(1,271)	(1,323)	(1,737)	(1,880)	(2,060)	(2,280)	(2,581)	(2,953)	(3,182)	(3,333)	(3,430)
State & local	198	228	245	254	286	312	338	386	415	473	507	540
Industry [†]	860	934	1,048	1,183	1,319	1,469	1,614	1,800	2,093	2,433	2,864	3,381
Private nonprofit	233	227	232	252	264	267	273	282	299	313	329	349
Foundations	83	77	75	79	86	76	71	65	60	54	50	45
Voluntary health agencies	63	63	70	84	85	94	102	113	131	148	166	186
Other	87	87	87	89	93	97	100	104	108	111	113	118
<i>B. BY PERFORMER</i>												
Government	677	730	772	826	843	904	1,003	1,163	1,264	1,439	1,528	1,519
Federal [‡]	568	609	629	668	715	780	867	1,032	1,120	1,284	1,370	1,361
State & local	109	121	143	158	128	124	136	131	144	155	158	158
Industry [§]	888	964	1,043	1,207	1,334	1,483	1,546	1,680	1,932	2,249	2,525	2,948
Private nonprofit	1,499	1,724	1,772	2,203	2,301	2,461	2,769	3,099	3,529	3,780	3,969	4,103
Higher education [§]	1,172	1,365	1,396	1,725	1,808	1,945	2,177	2,459	2,818	3,038	3,197	3,316
Other [§]	327	359	376	478	493	516	592	640	711	742	772	787
Foreign [†]	104	118	163	207	223	259	303	337	403	474	576	683

* Revised data for 1981-1982 for Tables 1-3 will be available in the Fall of 1982 from OPPE-NIH (301) 496-9291. [†]Revised, 1972-1979. [‡]Includes program management & direct operations attributable to health R&D in addition to in-house research. [§]Includes Federally Funded R&D Centers.

Table 2
NATIONAL SUPPORT FOR HEALTH R&D BY SOURCE AND PERFORMER, 1981 (EST.)
 (Millions of Dollars)

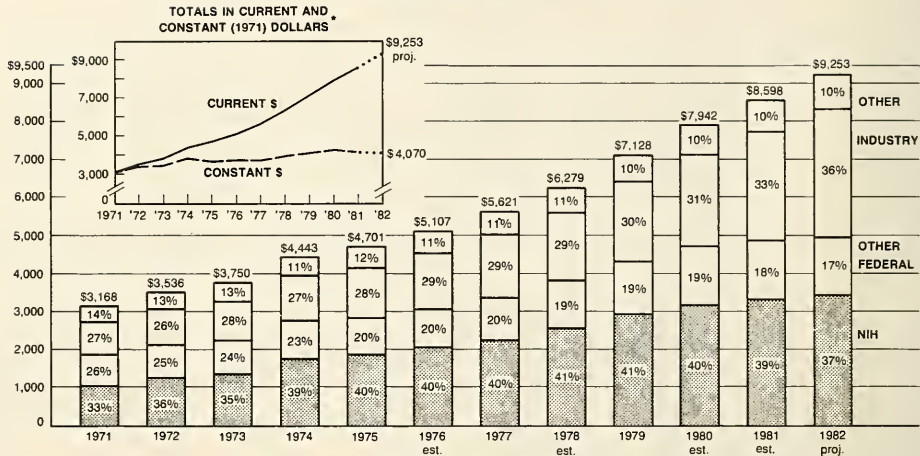
Source of support	Total	Performer					
		Federal	State and local	Industry	Higher education	Other nonprofit	Foreign
Total	\$8,598	\$1,370	\$158	\$2,525	\$3,197	\$772	\$576
Federal	4,898	1,369	72	322	2,478	605	52
NIH	(3,333) *	(640)	(47)	(141)	(1,997)	(484)	(24)
State & local	507	—	79	—	427	1	—
Industry	2,864	—	7	2,203	93	45	516
Private nonprofit	329	1	—	—	199	121	8



* Includes research grants (70%), contracts (11%), intramural research (12%), and appropriate management costs, interagency agreements, etc. (7%).

[†]Other.

Figure 2
NATIONAL SUPPORT FOR HEALTH R&D BY SOURCE, 1971-1982
(Dollars in Millions)



* Constant dollars based on biomedical R&D price index, 1979-1982. For 1982, based on percentage increase in estimated GNP implicit price deflator, with projected biomedical R&D price index, 227.3.

Table 3
FEDERAL OBLIGATIONS FOR HEALTH R&D BY SOURCE OR PERFORMER, FISCAL YEARS 1971-1981
(Millions of Dollars)

	1971	1972	1973	1974	1975	1976 (est.)	1977	1978 (est.)	1979	1980 (est.)	1981 (est.)
Total of A or B	\$1,876.6	\$2,147.3	\$2,225.3	\$2,753.6	\$2,831.7	\$3,058.7	\$3,395.9	\$3,811.2	\$4,321.2	\$4,722.6	\$4,897.8
<i>A. BY SOURCE OF FUNDS *</i>											
HHS (HEW)	1,316.0	1,584.3	1,609.9	2,092.2	2,196.6	2,382.7	2,651.5	3,012.6	3,450.7	3,694.0	3,874.2
NIH	1,038.9	1,271.3	1,323.2	1,736.8	1,879.9	2,060.2	2,279.9	2,580.9	2,953.1	3,181.8	3,333.3
Other PHS	247.6	275.8	254.7	315.2	278.5	287.7	308.4	364.3	419.9	458.0	491.5
Other HHS (HEW)	29.4	37.1	32.0	40.2	38.2	34.8	63.2	67.5	77.6	54.1	49.4
Other agencies	560.6	563.1	615.4	661.4	635.1	675.9	744.4	798.6	870.5	1,028.6	1,023.8
Agriculture	60.3	67.3	61.1	59.7	61.4	61.7	85.6	96.5	112.4	147.3	148.9
Defense	124.2	126.0	126.6	119.0	115.9	120.6	150.5	164.4	186.4	211.0	242.8
Education †	—	—	—	—	—	—	—	—	—	32.1	30.5
Energy (ERDA, AEC)	104.9	102.7	110.6	121.4	163.9	167.9	181.2	193.2	191.8	210.9	197.5
Environmental Protection	13.1	14.5	20.3	18.8	38.1	63.0	56.2	56.6	67.2	78.1	74.5
Int'l Dev Coop Agency (AID)	15.2	15.1	16.3	10.3	6.4	8.8	23.7	17.2	20.2	13.4	13.6
Aeronautics & Space	74.9	50.3	42.3	80.1	74.9	72.9	47.8	56.6	41.4	71.8	67.7
National Science Foundation	34.3	37.2	45.5	47.0	44.7	51.8	55.4	65.3	73.8	75.7	66.4
Veterans	62.7	68.9	74.2	84.0	94.8	97.7	107.0	114.0	127.0	133.4	144.4
Other	71.1	81.0	118.6	121.2	35.0	31.5	37.0	34.9	50.3	54.9	37.3
<i>B. BY PERFORMER</i>											
Intramural (Federal)	566.5	608.2	627.3	667.9	714.2	779.3	865.9	1,031.0	1,119.1	1,282.9	1,388.7
Extramural (non-Federal)	1,310.1	1,539.1	1,598.0	2,085.8	2,117.4	2,279.3	2,529.9	2,780.2	3,202.2	3,439.7	3,508.1
State & local	51.5	60.2	79.3	91.6	60.0	52.9	61.4	54.3	65.5	72.3	71.8
Industry ‡	128.6	158.8	176.3	248.4	257.7	287.5	254.0	256.0	287.4	352.0	322.2
Private nonprofit	1,089.1	1,289.3	1,318.3	1,716.8	1,769.8	1,898.0	2,168.0	2,419.6	2,802.6	2,970.8	3,083.7
Higher education †	859.4	1,025.4	1,039.5	1,347.0	1,388.3	1,494.7	1,696.2	1,909.7	2,230.6	2,377.5	2,478.3
Medical schools §	(436.0)	(507.8)	(618.3)	(809.7)	(851.0)	(896.9)	(1,003.6)	(1,146.9)	(1,349.4)	(1,424.6)	(1,506.3)
Other ‡	229.7	264.0	278.8	369.7	381.5	403.3	471.8	509.8	572.0	593.3	605.4
Foreign	40.9	30.8	24.1	29.1	30.0	40.9	46.5	50.3	46.7	44.7	51.4

* As organized in year specified. † Office of Handicapped Research, formerly part of "Other HHS (HEW)." ‡ Includes Federally Funded R&D Centers. § NIH medical school contracts are excluded, 1971-1972, but are included in Higher Education for all years.

Table 4
OMAR CONSENSUS DEVELOPMENT CONFERENCES, 1977-1982

The Office for Medical Applications of Research (OMAR) in the Office of the Director, NIH, is the focal point for activities aimed at improving the translation of biomedical research results into knowledge that can be effectively applied in the practice of medicine and public health. In carrying this out, OMAR facilitates and coordinates technical consensus development activities at NIH. The following represent Consensus Conferences held from 1977 through Spring 1982 and planned for Fall 1982. For further information, contact OMAR office, (301) 496-1143.

Date	Conference Title	Sponsor
1977		
Sep. 14-16	Breast Cancer Screening	NCI
1978		
May 22	Educational Needs of Physicians and Public Regarding Asbestos Exposure	NCI
Jun. 13-14	Dental Implants Benefit and Risk	NIDR
Jun. 26-28	Mass Screening for Colo-Rectal Cancer	NCI
Jul. 10-11	Treatable Brain Diseases in the Elderly	NIA
Jul. 20	Indications for Tonsillectomy and Adenoidectomy: Phase I	NINCDS
Sep. 14	Availability of Insect Sting Kits to Non-Physicians	NIAID
Sep. 18-20	Mass Screening for Lung Cancer	NCI
Nov. 10-11	Supportive Therapy in Burn Care	NIGMS
Dec. 4-5	Surgical Treatment of Morbid Obesity	NIADDK

(Continued)

Table 4 (Cont.)
OMAR CONSENSUS DEVELOPMENT CONFERENCES, 1977-1982

Date	Conference Title	Sponsor
1979		
Feb. 15-16	Pain, Discomfort, and Humanitarian Care	HHS
Mar. 5-7	Antenatal Diagnosis	NICHD
Apr. 23-24	Transfusion Therapy in Pregnant Sickle Cell Disease Patients	NHLBI
Apr. 26-27	Improving Clinical and Consumer Blood Pressure Measuring Devices	NHLBI
Jun. 5	Primary Breast Cancer: Management of Local Diseases	NCI
Jun. 27-29	Steroid Receptors in Breast Cancer	NCI
Sep. 10-11	Intraocular Lens Implantation	NEI
Sep. 13-14	Estrogen Use and Postmenopausal Women	NIA
Oct. 15	Amantadine in the Prevention and Treatment of Influenza	NIAID
Oct. 17-19	The Use of Microprocessor-Based "Intelligent" Machines in Patient Care	DRS
Nov. 28-30	Removal of Third Molars	NIDR
1980		
Apr. 10-12	Thrombolytic Therapy in Thrombosis	NHLBI
May 19-20	Febrile Seizures	NINCDS
Jul. 14-16	Adjuvant Chemotherapy of Breast Cancer	NCI
Jul. 23-25	Cervical Cancer Screening: The Pap Smear	NCI, NIA, NICHD
Aug. 20-22	Endoscopy in Upper GI Bleeding	NIADDK

(Continued)

Table 4 (Cont.)
OMAR CONSENSUS DEVELOPMENT CONFERENCES, 1977-1982

Date	Conference Title	Sponsor
1980 (Continued)		
Sept. 22-24	Childbirth by Cesarean Delivery	NICHD
Sep. 29-Oct. 1	CEA: Its Role as a Marker in the Management of Cancer	NCI
Dec. 3-5	Coronary Bypass Surgery	NHLBI
1981		
Mar. 2-4	Reye's Syndrome	NINCDS, NIAID, NICHD, NIEHS, DRS
Nov. 4-6	CT Scan of the Brain	NINCDS, NCI
1982		
Jan. 13-15	Defined Diets and Childhood Hyperactivity	NIADDK, NICHD
Mar. 1-3	Hip Joint Replacement	NIADDK
Nov. 1-3 (planned)	Clinical Applications of Biomaterials	DRS

Table 5
 NIH APPROPRIATIONS BY NIH COMPONENT, FISCAL YEARS 1972-1982 *†
 Excluding Programs That Have Been Transferred Out
 (Dollars in Thousands)

NIH component	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982 [‡]	Percent change 1972-82	Percent change 1981-82
Total	\$1,506,156	\$1,762,565	\$1,790,425	\$2,092,897	\$2,302,126	\$2,544,078	\$2,842,936	\$3,189,976	\$3,428,935	\$3,569,406	\$3,640,186	141.7%	2.0%
I/RD—total	1,466,752	1,713,455	1,744,554	2,043,721	2,200,691	2,424,510	2,720,767	3,097,138	3,360,670	3,490,459	3,563,324	142.9	2.1
NIAID	103,968	107,719	111,089	119,452	126,852	141,000	162,341	191,328	215,364	232,077	235,895	126.9	1.6
NIADDK	145,036	158,132	153,561	173,514	179,516	219,600	260,253	302,767	341,206	369,462	368,191	153.9	— 0.3
NCI	372,742	485,505	527,486	691,666	761,727	815,000	872,388	936,737	999,869	989,355	986,617	164.7	— 0.3
NICHD	112,447	126,027	125,455	142,435	136,404	145,543	166,390	197,630	208,953	220,628	226,309	101.3	2.6
NIA	—	—	—	—	19,288	30,000	37,305	56,911	69,988	75,608	81,903	—	8.3
(NICHD & NIA)	(112,447)	(126,027)	(125,455)	(142,435)	(155,692)	(175,543)	(203,695)	(254,541)	(278,941)	(296,236)	(308,212)	174.1	4.0
NIDR	42,348	45,840	43,959	50,033	51,291	55,573	61,728	65,213	68,303	71,114	71,983	70.0	1.2
NIEHS	25,945	30,412	28,397	35,171	37,660	51,141	64,241	78,080	83,893	93,491	106,270	309.6	13.7
NIGMS	166,348	175,289	168,329	187,400	187,312	205,000	230,796	277,628	312,468	333,764	339,862	104.3	1.8
NHLBI	224,302	290,784	289,550	324,630	370,013	396,661	447,909	510,134	527,488	549,693	559,637	149.5	1.8
NINCDS	111,595	124,526	121,358	142,498	144,446	155,500	178,438	212,365	241,966	252,533	265,901	138.3	5.3
NEI	35,548	36,809	41,177	44,133	50,212	64,000	85,400	105,192	112,989	117,983	127,374	258.3	8.0
FIC	4,307	4,666	4,767	5,589	5,705	7,992	8,483	8,989	8,987	9,124	9,205	113.7	8.9
DRR [†]	74,981	75,073	76,273	76,979	79,714	86,812	93,450	94,534	103,144	109,629	116,568	55.5	6.3
GRS ^{‡§}	47,185	52,673	53,153	50,221	50,551	50,688	51,645	59,630	66,052	65,998	67,609	43.3	2.4
NLM	24,127	28,568	25,871	28,650	29,065	35,234	37,619	41,431	43,979	44,666	44,402	84.0	— 0.6
OD	11,712	12,042	12,000	17,326	18,370	16,934	18,900	20,457	21,036	22,531	22,562	92.6	0.1
Bldgs. & facilities	3,565	8,500	8,000	3,000	54,000	67,400	65,650	30,950	3,250	11,750	9,898	177.6	—15.8

* Excludes Foreign Currency Programs. † GRS grants are shown as a line item throughout the table, though separately budgeted only since 1974 (under DRR). This treatment understates the individual institute appropriations prior to 1974 (without affecting the NIH totals). ‡ Continuing Resolution (P.L. 97-161.) § Includes MBS grants.

Table 6
NIH OBLIGATIONS BY FUNCTION/MECHANISM, FISCAL YEARS 1971-1981 *
Excluding Programs That Have Been Transferred Out
(Thousands of Dollars)

Function/mechanism	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Total	\$1,211,979	\$1,505,793	\$1,523,101	\$1,994,431	\$2,108,886	\$2,238,410	\$2,581,988	\$2,828,014	\$3,184,641	\$3,428,842	\$3,572,506
I/RD	1,180,600	1,465,617	1,483,530	1,945,224	2,056,904	2,185,528	2,420,685	2,716,369	3,093,986	3,350,229	3,488,327
Grants & contracts	1,003,199	1,259,376	1,255,585	1,685,423	1,744,098	1,836,239	2,018,103	2,258,885	2,592,827	2,800,832	2,897,444
R&D grants [†]	695,439	820,092	841,358	1,091,795	1,146,934	1,267,128	1,422,499	1,623,908	1,930,511	2,135,481	2,313,058
R&D contracts	154,907	229,630	254,220	335,291	346,924	367,921	385,724	410,747	431,176	406,832	347,818
Research training	152,853	158,651	115,979	186,489	154,875	119,998	127,458	143,926	143,661	176,388	175,172
Disease control	—	—	5,223	33,758	50,389	56,471	60,482	63,749	70,107	66,699	56,165
Construction	—	51,003	38,805	38,090	44,976	24,721	21,940	16,555	17,372	15,432	5,231
Direct activities	177,401	206,241	227,945	259,801	312,806	349,289	402,582	457,484	501,159	549,397	590,883
Research	144,432	160,404	173,610	189,033	224,695	240,524	247,952 [‡]	284,916	345,432	377,923	413,427
Prog. mgt. & others [§]	32,969	45,837	54,335	70,768	88,111	108,765	154,630 [‡]	172,568	155,727	171,474	177,456
NLM	21,382	23,859	24,964	29,236	28,843	27,014	34,527	35,972	40,538	43,891	44,660
OD	8,902	11,242	11,213	12,695	17,298	18,334	16,921	18,857	19,820	20,781	22,465
Buildings & facilities	1,095	5,075	3,394	7,276	5,841	7,534	109,855	56,814	30,297	13,941	17,054

* Excludes Foreign Currency Programs. [†] Includes RCPAs. [‡] Reflects new budget structure from here on; not strictly comparable with prior years. [§] Management of extramural programs, ODs of I/RDs, and some management costs applicable to overall operations.

Table 7
NIH OBLIGATIONS BY NIH COMPONENT, FISCAL YEARS 1971-1981 *
In Current and Constant Dollars (Millions), Excluding Programs That Have Been Transferred Out

Fiscal year	Total	NIA	NIAID	NIADDK	NCI	NICHD	NIDR	NIEHS	NEI	NIGMS	NHLBI	NINCDS	DRR†	FIC	NLM	
CURRENT DOLLARS																
1971	\$1,212.0	\$ —	\$102.1	\$137.9	\$232.9	\$ 94.7	\$35.2	\$20.1	\$ 30.0	\$159.8	\$194.8	\$103.4	\$ 66.2	\$3.4	\$21.4	
1972	1,505.8	—	109.0	153.3	378.6	116.5	43.3	26.4	36.9	173.3	232.6	116.4	75.0	4.2	23.9	
1973	1,523.1	—	103.0	142.8	431.2	111.2	40.9	26.1	34.4	154.0	255.7	107.4	72.8	3.9	25.0	
1974	1,994.4	—	120.8	177.4	581.0	144.1	50.0	32.1	45.2	188.6	327.3	143.5	130.1	5.0	29.2	
1975	2,108.9	—	119.4	173.6	699.3	142.4	50.0	35.9	43.7	189.5	327.8	142.4	127.1	5.7	28.8	
1976	2,238.4	19.2	125.6	174.9	760.5	135.9	50.7	36.8	50.1	186.9	368.6	140.4	130.3	5.7	27.0	
1977	2,582.0	29.9	140.4	219.4	814.9	145.1	55.4	50.9	63.7	204.8	396.5	154.6	137.4	7.7	34.5	
1978	2,828.0	37.1	161.8	259.9	872.4	165.8	61.7	63.9	85.2	230.4	447.8	177.3	144.8	8.3	36.0	
1979	3,184.6	56.5	191.1	302.7	936.7	197.3	65.0	77.5	104.9	277.3	510.0	212.1	154.1	8.9	40.5	
1980	3,428.8	69.7	214.7	340.1	998.0	208.3	67.6	83.6	109.6	312.3	527.1	241.4	169.1	8.7	43.9	
1981	3,572.5	75.6	232.0	369.3	989.3	220.4	71.1	92.9	117.7	333.5	549.7	252.2	175.6	9.1	44.7	
CONSTANT DOLLARS																
															Index	
1971	1,212.0	—	102.1	137.9	232.9	94.7	35.2	20.1	30.0	159.8	194.8	103.4	66.2	3.4	21.4	100.0
1972	1,435.6	—	104.0	146.2	361.0	111.1	41.3	25.1	35.2	165.3	221.7	111.0	71.5	4.0	22.7	104.9
1973	1,384.8	—	93.7	129.8	392.1	101.1	37.2	23.8	31.3	140.0	232.5	97.6	66.2	3.5	22.7	110.0
1974	1,704.9	—	103.3	151.6	496.7	123.2	42.8	27.5	38.6	161.2	279.7	122.7	111.2	4.3	25.0	117.0
1975	1,628.6	—	92.2	134.0	540.0	110.0	38.6	27.7	33.8	146.4	253.2	110.0	98.2	4.4	22.3	129.5
1976	1,608.5	13.8	90.2	125.7	546.5	97.6	36.4	26.4	36.0	134.3	264.8	100.9	93.6	4.1	19.4	139.2
1977	1,718.5	19.9	93.4	146.1	542.4	96.6	36.9	33.9	42.4	136.3	263.9	102.9	91.5	5.1	23.0	150.3
1978	1,740.6	23.0	100.2	161.0	540.4	102.7	38.2	39.6	52.8	142.7	277.4	109.8	89.7	5.1	11.1	161.4
1979	1,822.6	32.3	109.4	173.2	536.1	112.9	37.2	44.3	60.0	158.7	291.9	121.4	88.2	5.1	23.2	174.7
1980	1,798.7	36.6	112.6	178.4	523.6	109.3	35.5	43.9	57.5	163.8	276.5	126.6	88.7	4.5	23.0	190.6
1981	1,700.4	36.0	110.4	175.8	470.9	104.9	33.8	44.2	56.0	158.7	261.6	120.0	83.6	4.3	21.3	210.1

* OD and Buildings & Facilities are included in totals only. Excludes Foreign Currency Programs. Constant dollars are based on biomedical R&D price index. † Includes GRS programs for 1974-1981, formerly spread among I/RDs (but 1973 funds released in 1974 are spread).

Table 8
NIH OBLIGATIONS BY I/RD, PROGRAM ACTIVITY, AND FUNCTION/MECHANISM, FISCAL YEAR 1981
(Thousands of Dollars)

I/RD and program activity	Total	Grants and contracts							Direct activities		
		R&D grants			R&D contracts	Research training		Disease control	Research	Other direct *	Program mgt (ODs)
		Projects	Centers	Other		Indiv.	Inst'l				
Total I/RD	\$3,488,327[†]	\$1,766,840	\$340,878	\$205,540	\$347,818	\$30,897	\$144,275	\$56,165	\$413,427	\$141,677	\$35,779
NIA	75,596	42,954	228	4,407	5,769	650	1,948	—	13,161	4,268	2,211
Aging	55,956	42,954	228	4,407	5,769	650	1,948	—	—	—	—
Intramural research	13,161	—	—	—	—	—	—	—	13,161	—	—
Direct operations	4,268	—	—	—	—	—	—	—	—	4,268	—
Program management	2,211	—	—	—	—	—	—	—	—	—	2,211
NIAID	232,028	150,322	4,055	4,379	11,095	2,069	6,698	—	41,347	9,415	2,648
Immunology; immunologic and allergic diseases	70,530	59,642	4,055	1,994	1,676	650	2,513	—	—	—	—
Microbiology & infectious diseases	108,088	90,680	—	2,385	9,419	1,419	4,185	—	—	—	—
Intramural research	41,347	—	—	—	—	—	—	—	41,347	—	—
Direct operations	9,415	—	—	—	—	—	—	—	—	9,415	—
Program management	2,648	—	—	—	—	—	—	—	—	—	2,648

* Management of extramural programs and some management costs applicable to overall operations.

† Includes NCI construction awards (\$5,231 thousand).

Total NIH **\$3,572,506**
 I/RD **3,488,327**
 NLM **44,660**
 OD **22,465**
 Bldgs. & fac. **17,054**

(Continued)

Table 8 (Cont.)
NIH OBLIGATIONS BY I/RD, PROGRAM ACTIVITY, AND FUNCTION/MECHANISM, FISCAL YEAR 1981
(Thousands of Dollars)

I/RD and program activity	Total	Grants and contracts							Direct activities		
		R&D grants			R&D contracts	Research training		Disease control	Research	Other direct *	Program mgt (ODs)
		Projects	Centers	Other		Indiv.	Inst'l				
NIADDK	\$369,292	\$249,016	\$20,681	\$13,027	\$ 7,550	\$3,639	\$16,170	\$ —	\$ 46,151	\$11,463	\$ 1,595
Arthritis; bone & skin diseases	63,663	47,869	7,235	2,727	2,146	455	3,229	—	—	—	—
Diabetes, endocrinology, & metabolism	130,537	102,012	11,004	6,350	3,072	1,797	6,302	—	—	—	—
Digestive diseases & nutrition	55,281	46,380	2,442	1,937	552	790	3,180	—	—	—	—
Kidney disease, urology, & hematology	60,602	52,755	—	2,013	1,778	597	3,459	—	—	—	—
Intramural research	46,151	—	—	—	—	—	—	—	46,151	—	—
Direct operations	11,463	—	—	—	—	—	—	—	—	11,463	—
Program management	1,595	—	—	—	—	—	—	—	—	—	1,595
NCI	989,342[†]	355,455	71,408	70,506	201,431	4,046	21,560	56,165	155,484	37,294	10,762
Research	814,730	355,455	—	57,313	201,263	—	—	2,488	155,484	32,625	10,102
Cause & prevention	276,527	108,862	—	9,645	102,699	—	—	—	41,472	10,390	3,459
Detection & diagnosis	52,185	13,087	—	3,456	14,280	—	—	—	16,985	3,271	1,106
Treatment	315,277	127,747	—	41,018	70,988	—	—	2,488	59,098	10,614	3,324
Cancer biology	170,741	105,759	—	3,194	13,296	—	—	—	37,929	8,350	2,213
Resource development	119,180 [†]	—	71,408	13,193	168	4,046	21,560	286	—	3,021	267
Cancer centers support	72,965	—	71,408	—	168	—	—	—	—	1,275	114
Research manpower	40,108	—	—	13,193	—	4,046	21,560	286	—	940	83
Construction	6,107 [†]	—	—	—	—	—	—	—	—	806	70
Cancer control	55,432	—	—	—	—	—	—	53,391	—	1,648	393

See footnotes at beginning of table.

(Continued)

Table 8 (Cont.)
NIH OBLIGATIONS BY I/RD, PROGRAM ACTIVITY, AND FUNCTION/MECHANISM, FISCAL YEAR 1981
(Thousands of Dollars)

I/RD and program activity	Total	Grants and contracts							Direct activities		
		R&D grants			R&D contracts	Research training		Disease control	Research	Other direct*	Program mgt (ODs)
		Projects	Centers	Other		Indiv.	Inst'l				
NICHD	\$220,366	\$129,105	\$22,349	\$4,608	\$18,264	\$1,283	\$7,817	\$ —	\$25,335	\$9,736	\$1,869
Research for mothers & children	106,055	82,658	11,559	3,238	2,646	623	5,331	—	—	—	—
Population	77,371	46,447	10,790	1,370	15,618	660	2,486	—	—	—	—
Intramural research	25,335	—	—	—	—	—	—	—	25,335	—	—
Direct operations	9,736	—	—	—	—	—	—	—	—	9,736	—
Program management	1,869	—	—	—	—	—	—	—	—	—	1,869
NIDR	71,107	31,250	9,178	1,344	3,419	1,390	3,025	—	13,752	6,386	1,363
Caries	11,679	6,374	—	298	1,924	273	226	—	—	2,584	—
Periodontal diseases	8,811	5,102	1,702	251	391	362	1,003	—	—	—	—
Restorative materials	5,016	3,405	—	201	826	82	502	—	—	—	—
Craniofacial anomalies	9,270	7,887	—	190	133	362	698	—	—	—	—
Pain control & behavioral studies	3,296	2,792	—	168	—	167	169	—	—	—	—
Soft tissue, stomatology, & nutrition	6,642	5,690	—	236	145	144	427	—	—	—	—
Dental research institutes	7,476	—	7,476	—	—	—	—	—	—	—	—
Intramural research	13,752	—	—	—	—	—	—	—	13,752	—	—
Direct operations	3,802	—	—	—	—	—	—	—	—	3,802	—
Program management	1,363	—	—	—	—	—	—	—	—	—	1,363

See footnotes at beginning of table.

(Continued)

Table 8 (Cont.)
NIH OBLIGATIONS BY I/RD, PROGRAM ACTIVITY, AND FUNCTION/MECHANISM, FISCAL YEAR 1981
(Thousands of Dollars)

I/RD and program activity	Total	Grants and contracts							Direct activities		
		R&D grants			R&D contracts	Research training		Disease control	Research	Other direct *	Program mgt (ODs)
		Projects	Centers	Other		Indiv.	Inst'l				
NIEHS	\$ 92,923	\$32,866	\$9,603	\$1,039	\$9,904	\$ 614	\$5,891	\$ —	\$27,943	\$2,692	\$2,371
Prediction, detection, & assessment of environmental diseases & disorders	26,325	18,735	—	702	6,888	—	—	—	—	—	—
Mechanisms of environmental diseases & disorders	17,484	14,131	—	337	3,016	—	—	—	—	—	—
Resources for research & manpower development	16,108	—	9,603	—	—	614	5,891	—	—	—	—
Intramural research	27,943	—	—	—	—	—	—	—	27,943	—	—
Direct operations	2,692	—	—	—	—	—	—	—	—	2,692	—
Program management	2,371	—	—	—	—	—	—	—	—	—	2,371
NEI	117,666	85,037	4,228	4,391	4,231	1,418	2,524	—	11,575	2,917	1,345
Retinal & choroidal diseases	42,263	30,844	2,868	2,844	4,231	576	900	—	—	—	—
Corneal diseases	16,769	15,667	26	156	—	188	732	—	—	—	—
Cataract	9,721	8,726	428	370	—	65	132	—	—	—	—
Glaucoma	9,950	8,437	906	294	—	63	250	—	—	—	—
Sensory motor disorders & rehabilitation	23,126	21,363	—	727	—	526	510	—	—	—	—
Intramural research	11,575	—	—	—	—	—	—	—	11,575	—	—
Direct operations	2,917	—	—	—	—	—	—	—	—	2,917	—
Program management	1,345	—	—	—	—	—	—	—	—	—	1,345

See footnotes at beginning of table.

(Continued)

Table 8 (Cont.)
NIH OBLIGATIONS BY I/RD, PROGRAM ACTIVITY, AND FUNCTION/MECHANISM, FISCAL YEAR 1981
(Thousands of Dollars)

I/RD and program activity	Total	Grants and contracts							Direct activities		
		R&D grants			R&D contracts	Research training		Disease control	Research	Other direct *	Program mgt (ODs)
		Projects	Centers	Other		Indiv.	Inst'l				
NIGMS	\$333,504	\$253,501	\$12,847	\$ 2,978	\$ 735	\$7,004	\$46,151	\$ —	\$ 559	\$ 8,058	\$1,671
Cellular & molecular basis of disease	113,084	86,041	504	588	30	1,990	23,931	—	—	—	—
Genetics	121,371	104,484	4,117	535	635	3,647	7,953	—	—	—	—
Pharmacological sciences	39,603	30,025	3,484	152	—	603	5,339	—	—	—	—
Physiological & biomedical engineering	44,643	32,951	4,742	1,703	70	236	4,941	—	—	—	—
Minority access to research careers	4,515	—	—	—	—	528	3,987	—	—	—	—
Intramural research	559	—	—	—	—	—	—	—	559	—	—
Direct operations	8,058	—	—	—	—	—	—	—	—	8,058	—
Program management	1,671	—	—	—	—	—	—	—	—	—	1,671
NHLBI	549,662	288,841	63,604	21,685	69,340	4,496	26,964	—	42,457	26,179	6,096
Heart & vascular diseases	319,280	189,884	32,044	15,049	61,295	2,848	18,160	—	—	—	—
Lung diseases	79,033	50,078	14,905	4,807	3,388	583	5,272	—	—	—	—
Blood diseases & resources	76,617	48,879	16,655	1,829	4,657	1,065	3,532	—	—	—	—
Intramural research	42,457	—	—	—	—	—	—	—	42,457	—	—
Direct operations	26,179	—	—	—	—	—	—	—	—	26,179	—
Program management	6,096	—	—	—	—	—	—	—	—	—	6,096

See footnotes at beginning of table.

(Continued)

Table 8 (Cont.)
NIH OBLIGATIONS BY I/RD, PROGRAM ACTIVITY, AND FUNCTION/MECHANISM, FISCAL YEAR 1981
(Thousands of Dollars)

I/RD and program activity	Total	Grants and contracts							Direct activities		
		R&D grants			R&D contracts	Research training		Disease control	Research	Other direct*	Program mgt (ODs)
		Projects	Centers	Other		Indiv.	Inst'l				
NINCDS	\$252,182	\$148,293	\$22,171	\$ 9,148	\$13,376	\$4,269	\$4,939	\$ —	\$35,663	\$12,157	\$2,166
Communicative disorders	40,299	29,446	4,841	2,540	1,670	884	918	—	—	—	—
Neurological disorders	77,498	58,808	8,554	3,617	3,730	1,183	1,606	—	—	—	—
Stroke & nervous system trauma	42,357	29,632	8,776	1,692	1,510	356	391	—	—	—	—
Fundamental neurosciences	38,206	30,407	—	1,299	2,630	1,846	2,024	—	—	—	—
Intramural research	39,499	—	—	—	3,836	—	—	—	35,663	—	—
Direct operations	12,157	—	—	—	—	—	—	—	—	12,157	—
Program management	2,166	—	—	—	—	—	—	—	—	—	2,166
DRR	175,551	—	98,726	68,028	2,704	19	588	—	—	4,061	1,425
Clinical research	60,148	—	59,858	250	40	—	—	—	—	—	—
Biotechnology research	18,908	—	15,868	1,039	2,001	—	—	—	—	—	—
Lab. animal sciences & primate research	25,006	—	23,000	836	563	19	588	—	—	—	—
Biomedical research support	47,146	—	—	47,146	—	—	—	—	—	—	—
Minority biomedical support	18,857	—	—	18,757	100	—	—	—	—	—	—
Direct operations	4,061	—	—	—	—	—	—	—	—	4,061	—
Program management	1,425	—	—	—	—	—	—	—	—	—	1,425
FIC	9,108	—	1,800	—	—	—	—	—	—	7,051	257
Gorgas Memorial Institute	1,800	—	1,800	—	—	—	—	—	—	—	—
Direct operations	7,051	—	—	—	—	—	—	—	—	7,051	—
Program management	257	—	—	—	—	—	—	—	—	—	257

See footnotes at beginning of table.

Table 9
NIH HEALTH RESEARCH SUPPORT BY SATT CATEGORY AND I/RD, FISCAL YEAR 1981 *
 (Millions of Dollars)

SATT category	Total	NIA	NIAID	NIADDK	NCI	NICHD	NIDR	NIEHS	NEI	NIGMS	NHLBI	NINCDS	DRR	FIC	NLM, OD, B&F
Total	\$3,572.5	\$75.6	\$232.0	\$369.3	\$989.3	\$220.4	\$71.1	\$92.9	\$117.7	\$333.5	\$549.7	\$252.2	\$175.6	\$9.1	\$84.2
Science base	2,807.4	69.6	200.6	328.5	640.2	193.2	65.3	72.1	98.8	274.2	427.6	228.6	163.0	7.4	38.3
Research project grants	1,673.0	42.6	140.3	236.4	307.9	124.3	31.0	32.9	78.6	249.7	283.1	146.2	—	—	—
Center grants	298.9	0.2	3.6	17.0	57.0	21.6	9.2	9.3	3.6	12.3	49.7	20.5	93.4	1.5	—
Other grants & contracts [†]	465.2	14.3	20.4	29.0	153.1	23.3	11.4	5.8	6.5	11.6	52.4	28.7	69.6	5.9	33.0
Intramural research	370.4	12.5	36.2	46.2	122.1	24.0	13.6	24.2	10.2	0.6	42.5	33.1	—	—	5.3
Applications [†]	431.7	2.3	21.6	15.9	246.4	16.3	0.8	11.6	14.5	4.6	62.0	12.5	10.4	0.9	11.8
Technology transfer [†]	149.2	0.9	0.5	4.3	76.5	1.0	0.1	2.2	0.2	—	26.5	1.5	1.5	0.8	33.2
Research training [†]	184.2	2.8	9.2	20.5	26.2	9.8	5.0	7.0	4.1	54.7	33.6	9.7	0.6	—	0.9

* SATT = Science base, Applications, technology Transfer, research Training—categories for research program analysis. Data represent obligations. [†]Includes NIH management costs.

Table 10
MORTALITY FROM SELECTED CAUSES, UNITED STATES, 1968 AND 1978

Cause of death	ICDA code *	1968				1978			
		Rank	Number	Rate per 100,000 pop.	Percent of all deaths	Rank	Number	Rate per 100,000 pop.	Percent of all deaths
Total			1,930,082	967.9	100.0%		1,927,788	883.4	100.0%
Diseases of the circulatory system	390-458	1	1,040,292	521.7	53.9	1	982,122	450.0	50.9
Diseases of the heart	390-398,402,404,410-429		744,295	373.3	38.6		729,510	334.3	37.8
Cerebrovascular disease	430-438		211,390	106.0	11.0		175,629	80.5	9.1
Arteriosclerosis	440		33,568	16.8	1.7		28,940	13.3	1.5
Hypertension	400-401,403		9,063	4.5	0.5		5,490	2.5	0.3
Malignant neoplasms	140-209	2	323,495	162.2	16.8	2	396,992	181.9	20.6
Digestive organs and peritoneum	150-159		93,563	46.9	4.8		105,427	48.3	5.5
Respiratory system	160-163		63,485	31.8	3.3		99,898	45.8	5.2
Genital organs	180-187		40,936	20.5	2.1		45,131	20.7	2.3
Breast	174		29,081	14.6	1.5		34,609	15.9	1.8
Accidents, poisoning, and violence	E800-E999	3	155,237	77.9	8.0	3	157,450	72.1	8.1
Diseases of the respiratory system	460-519	4	123,440	55.9	6.4	4	122,057	55.9	6.3
Influenza and pneumonia	470-474,480-486		73,492	36.9	3.8		58,319	26.7	3.0
Bronchitis, emphysema, and asthma	490-493		33,078	16.6	1.7		21,875	10.0	1.1
Diseases of the digestive system	520-577	5	73,718	37.0	3.8	5	67,729	31.0	3.5
Cirrhosis of the liver	571		29,183	14.6	1.5		30,066	13.8	1.6
Endocrine, nutritional, and metabolic diseases	240-279	6	46,354	23.2	2.4	6	42,493	19.5	2.2
Diabetes mellitus	250		38,352	19.2	2.0		33,841	15.5	1.8
Diseases of the genitourinary system	580-629	8	29,787	14.9	1.5	7	26,670	12.2	1.4
Certain causes of mortality in early infancy	760-769.2,769.4-772,774-778	7	43,840	22.0	2.3	8	22,033	10.1	1.1
Diseases of the nervous system and sense organs	320-389	11	16,439	8.2	0.9	9	18,113	8.3	0.9
Infective and parasitic diseases	000-136	9	17,776	8.9	0.9	10	18,042	8.3	0.9
Congenital anomalies	740-759	10	16,793	8.4	0.9	11	12,968	5.9	0.7
All other diseases	Residual		42,911	21.5	2.2		61,119	28.0	3.2

* Based on *Eight Revision International Classification of Diseases, Adapted for Use in the United States*. Data for 1979, based on the Ninth Revision, will be available in late Fall, 1982.
 Source: Based on data from NCHS, HHS (301) 436-8884.

Table 11
MORBIDITY FROM SELECTED CHRONIC CONDITIONS, UNITED STATES, 1980 *
(In Thousands)

Condition	Prevalence	Condition	Prevalence
Chronic sinusitis	31,596	Hernia of abdominal cavity	3,888
Arthritis [†]	27,773	Ulcer of stomach and duodenum	3,615
Hypertension [†]	24,919	Thyroid conditions	3,046
Orthopedic impairment (except paralysis) or absence of arm or leg	19,794	Enlarged tonsils and adenoids	2,955
Hay fever (without asthma)	17,433	Slipped disc	2,950
Hearing impairments	17,370	Anemia	2,605
Heart conditions	16,434	Emphysema	2,476
Digestive conditions [‡]	14,327	Female disorders (except breast)	2,472
Hemorrhoids	8,616	Speech defects	2,317
Eczema, dermatitis, urticaria [†]	8,456	Cerebrovascular diseases	2,101
Chronic bronchitis	7,869	Gout	1,801
Asthma (with or without hay fever)	6,803	Psoriasis and similar disorders	1,636
Corns, callosities, bunion	6,157	Diseases of prostate	1,386
Varicose veins [†]	5,930	Paralysis, complete or partial	1,254
Diabetes	5,665	Gallbladder condition	1,217
Migraine	5,630	Osteomyelitis and other bone diseases	1,082
Diseases of the urinary system	5,444	Poor circulation [†]	1,068
Synovitis, bursitis, tenosynovitis	5,317	Neuralgia and neuritis	1,020
Acne [†]	5,046	Severe visual impairment	896
Diseases of nail	4,409	Congenital anomalies of circulatory system	649

* National estimate based on household interviews of the civilian noninstitutionalized population. Excludes cancer and mental illness. [†]Not elsewhere classified.

[‡]Frequent constipation, functional and symptomatic upper gastro-intestinal disorders, gastritis and duodenitis, diverticula of intestines, enteritis and colitis, and intestinal conditions only.

Source: Derived from unpublished data from NCHS, HHS (301) 436-7089.

Table 12
MORBIDITY FROM SELECTED ACUTE CONDITIONS, UNITED STATES, 1980*

Condition	Incidence (thousands)	Days per 100 persons per year			
		Restricted activity	Bed disability	Work loss [†]	School loss [‡]
Total	484,159	986.9	426.6	347.7	487.2
Respiratory conditions	253,175	432.3	221.9	151.5	284.8
Upper respiratory	124,218	160.3	67.0	44.6	107.6
Influenza	113,799	215.7	124.6	87.6	157.4
Bronchitis	7,806	19.3	10.9	7.3	9.7
Pneumonia	2,454	19.8	11.9	9.2	4.8 [§]
Other	4,899	17.2	7.5	2.8 [§]	5.4 [§]
Infective and parasitic diseases	53,580	94.4	50.9	25.2	93.3
Digestive system conditions	24,877	45.5	21.7	18.5	22.3
Dental conditions	6,991	11.2	4.7	6.1	2.9 [§]
Diseases of the ear	20,426	31.3	12.4	5.5	12.7
Genitourinary disorders	13,200	30.7	14.8	8.2	7.7 [§]
Diseases of the musculoskeletal system	7,769	34.9	9.3	11.7	0.9 [§]
Diseases of the skin	4,322	6.4	1.3 [§]	1.6 [§]	3.9 [§]
Deliveries and disorders of pregnancy and the puerperium	5,111	34.5	14.3	6.7	4.5 [§]
Headaches	4,243	4.7	1.7 [§]	1.1 [§]	3.9 [§]
Injuries	72,715	220.6	59.1	105.6	40.1
All other acute conditions	24,741	51.7	19.3	9.8	10.9

* National estimate based on household interviews of the civilian noninstitutionalized population. "Acute" condition is defined as one that lasted less than 3 months and involved medical attention or restricted activity. [†]Per 100 currently employed persons. [‡]Children 6-16 years of age. [§]Figure does not meet standards of reliability or precision.

Source: Derived from published and unpublished data from NCHS, HHS (301) 436-7089.

Table 13
NIH AWARDS BY FUNDING MECHANISM, FISCAL YEARS 1971-1981
Excluding Programs That Have Been Transferred Out
(Dollars in Millions)

Fiscal year	Total amount [*]	Institutes and Research Divisions											NLM awards
		Research and development				Research training					Construction grants		
		Grants [†]		Contracts [‡]		Total amount	Individual awards		Institutional grants				
		Number	Amount	Number	Amount		Number	Amount	Number	Amount	Number	Amount	Amount
1971	\$1,005.4	12,126	\$ 699.7	1,167	\$143.0	\$152.9	2,718	\$23.8	2,111	\$129.1	—	\$ —	\$ 9.7
1972	1,253.6	12,568	825.5	1,381	215.6	157.6	2,264	21.5	2,024	136.1	17	44.1	10.8
1973	1,241.2	12,310	837.5	1,522	243.9	115.3	1,233	12.2	1,696	103.1	20	33.5	11.1
1974	1,680.5	14,311	1,093.5	1,882	349.9	186.5	2,267	30.6	2,922	155.9	9	31.7	13.0
1975	1,735.3	14,480	1,141.3	2,074	390.9	156.8	2,056	27.8	1,739	129.0	12	30.0	11.6
1976	1,830.5	15,230	1,263.6	1,976	404.1	122.0	1,652	23.2	1,339	98.8	14	20.0	10.3
1977	2,015.1	15,426	1,417.2	2,161	419.7	130.4	1,975	27.3	1,200	103.1	10	16.0	15.4
1978	2,252.1	16,623	1,618.0	2,026	443.0	147.2	2,070	29.7	1,321	117.4	14	12.0	14.3
1979	2,590.4	19,039	1,928.6	1,836	465.1	148.0	2,208	31.8	1,256	116.1	10	12.5	17.0
1980	2,788.6	19,865	2,132.7	1,556	422.9	181.1	1,973	38.9	1,505	142.2	10	10.8	17.3
1981	2,883.7	20,229	2,302.8	1,287	359.6	180.4	1,752	35.5	1,359	144.9	6	2.0	15.1

* Shown in totals only are cancer control grants, which began 1974 (\$22.6 million in 1981), and cooperative agreements, which began in 1980 (\$1.0 million in 1981), for NCI and NIEHS.

† Includes GRS programs, plus NIMH portion through 1974. ‡ Includes cancer control contracts (\$22 million est. in 1981).

Table 14
NIH AWARDS BY NIH COMPONENT AND FUNDING MECHANISM, FISCAL YEARS 1971-1981
(Millions of Dollars)

Fiscal year	Total	NIA *			NIAID			NIADDK			NCI				
		R&D		Research training	R&D		Research training	R&D		Research training	R&D		Research training	Constr. grants	Control grants
		Grants	Contracts		Grants	Contracts		Grants	Contracts		Grants	Contracts			
1971	\$1,005.4	\$ —	\$ —	\$ —	\$ 54.2	\$ 8.4	\$9.7	\$ 85.3	\$ 5.1	\$17.3	\$ 90.4	\$ 70.8	\$12.6	\$ —	\$ —
1972	1,253.8	—	—	—	60.9	8.8	9.8	97.3	6.5	17.1	122.6	111.8	18.5	44.1	—
1973	1,241.2	—	—	—	61.3	8.5	6.7	95.4	6.8	12.9	159.0	132.8	14.0	33.5	—
1974	1,680.5	—	—	—	69.4	11.7	9.2	117.8	7.3	19.0	215.6	198.4	23.6	31.7	5.9
1975	1,735.3	—	—	—	69.6	11.1	8.3	122.1	6.5	13.6	269.4	249.8	23.1	30.0	4.7
1976	1,830.5	10.0	0.8	1.8	75.4	10.2	7.8	132.2	6.5	2.0	311.6	262.8	18.2	20.0	10.5
1977	2,015.1	17.5	1.6	2.2	82.1	15.9	6.6	158.2	11.4	9.8	340.8	261.0	19.8	16.0	16.5
1978	2,252.1	21.8	1.8	2.4	94.9	17.8	8.1	187.0	13.7	14.9	377.5	263.9	20.0	12.0	17.6
1979	2,590.4	37.0	2.6	2.4	122.0	16.6	7.9	222.8	15.3	14.9	420.2	265.1	20.0	12.3	19.3
1980	2,788.6 [‡]	42.4	4.3	2.8	140.6	17.4	9.5	252.1	11.4	21.7	462.9	246.5	27.8	10.8	22.9
1981	2,883.7 [‡]	46.1	4.9	2.6	158.1	12.2	8.7	281.4	7.3	19.8	493.4	209.4	26.3	2.0	22.6

* Founded in 1974, but funded with NICHD until 1976. [†]CC, DCRT, DRG, DRS, and OD. [‡]Cooperative agreements are shown in total only.

(Continued)

Table 14 (Cont.)
NIH AWARDS BY NIH COMPONENT AND FUNDING MECHANISM, FISCAL YEARS 1971-1981
(Millions of Dollars)

Fiscal year	NICHD			NIDR			NIEHS			NEI			NIGMS		
	R&D		Research training	R&D		Research training	R&D		Research training	R&D		Research training	R&D		Research training
	Grants	Contracts		Grants	Contracts		Grants	Contracts		Grants	Contracts		Grants	Contracts	
1971	\$ 49.7	\$15.1	\$10.9	\$16.8	\$2.1	\$6.0	\$ 9.6	\$0.2	\$3.2	\$20.0	\$0.8	\$3.9	\$ 86.6	\$2.4	\$53.1
1972	63.5	19.6	10.9	21.3	5.3	5.9	12.3	1.0	3.2	23.7	2.2	4.3	101.4	2.7	50.5
1973	63.6	17.9	7.4	21.7	4.4	3.5	12.8	1.1	2.0	22.9	2.1	3.1	100.8	2.9	36.9
1974	83.1	20.5	14.8	24.8	3.2	8.9	16.1	1.4	4.6	29.7	2.1	5.8	113.3	2.1	59.7
1975	86.2	19.1	11.7	25.3	4.5	5.5	18.4	2.6	3.3	29.9	2.4	4.2	127.9	1.5	52.6
1976	85.9	18.3	9.5	27.0	3.7	5.1	20.4	3.3	1.7	35.3	2.2	4.6	137.2	1.2	40.8
1977	91.7	20.1	9.4	30.0	4.3	3.3	27.3	3.9	4.2	45.8	3.5	4.6	152.1	0.5	43.8
1978	106.7	20.0	10.2	34.7	3.9	3.3	32.8	3.7	4.5	64.6	4.7	4.6	173.8	0.6	46.8
1979	134.2	21.0	9.8	37.9	3.6	3.3	39.4	7.5	4.5	81.8	5.4	4.6	220.5	0.5	46.9
1980	138.5	22.9	10.8	38.8	3.2	3.9	40.0	8.4	6.5	85.3	5.0	4.5	253.3	0.9	47.9
1981	155.0	16.7	9.1	41.5	2.4	4.4	43.7	7.4	6.5	93.0	3.8	3.9	268.2	0.8	53.4

See footnotes at beginning of table.

(Continued)

Table 14 (Cont.)
NIH AWARDS BY NIH COMPONENT AND FUNDING MECHANISM, FISCAL YEARS 1971-1981
(Millions of Dollars)

Fiscal year	NHLBI			NINCDS			DRR			FIC		Other [†]	NLM
	R&D		Research training	R&D		Research training	R&D		Research training	R&D contracts	Research training	R&D contracts	All awards
	Grants	Contracts		Grants	Contracts		Grants	Contracts					
1971	\$114.6	\$27.7	\$19.7	\$ 55.7	\$ 7.0	\$14.9	\$116.8	\$1.4	\$0.5	\$ —	\$1.2	\$ 2.2	\$ 9.7
1972	131.5	41.4	19.9	65.6	8.8	15.2	125.4	2.6	0.5	—	1.9	4.9	10.8
1973	141.7	55.4	15.1	64.1	8.3	12.3	94.1	2.7	0.3	—	1.0	0.9	11.1
1974	179.0	85.0	19.4	85.7	10.7	18.7	159.0	3.7	0.6	—	2.2	4.0	13.0
1975	182.1	74.8	19.9	89.6	10.2	12.0	120.9	4.3	0.4	—	2.1	4.1	11.6
1976	241.1	76.1	20.4	90.3	11.0	7.7	124.2	5.2	0.3	—	2.1	2.7	10.3
1977	240.5	74.8	17.0	99.1	13.2	6.3	132.1	4.4	0.5	0.3	2.9	4.6	15.4
1978	274.3	82.7	21.2	111.1	17.9	7.3	138.6	5.2	0.5	0.1	3.4	7.1	14.3
1979	324.6	91.3	21.2	139.0	21.5	7.6	149.3	5.4	0.5	—	4.4	9.4	17.0
1980	345.2	75.5	31.8	167.7	15.1	8.9	165.9	4.6	0.7	—	4.3	7.5	17.3
1981	371.2	67.8	31.4	178.4	12.7	9.2	172.8	4.4	0.6	—	4.6	10.0	15.1

See footnotes at beginning of table.

Table 15
NLM AWARDS BY FUNDING MECHANISM, FISCAL YEARS 1971-1981
(Dollars in Thousands)

Fiscal year	Total amount	Resource grants		Medical library research grants		Training					Contracts	
						Total amount	Individual awards		Institutional grants			
		Number	Amount	Number	Amount		Number	Amount	Number	Amount	Number	Amount
1971	\$ 9,706	471	\$2,464	37	\$ 867	\$1,005	4	\$ 57	10	\$ 948	53	\$ 5,370
1972	10,826	379	2,712	46	950	1,268	7	132	11	1,136	68	5,895
1973	11,109	166	2,669	47	996	796	7	135	9	661	73	6,647
1974	13,046	127	2,632	50	1,420	902	1	14	10	888	79	8,092
1975	11,609	38	1,469	60	2,049	891	—	2 *	9	889	84	7,200
1976	10,284	37	688	56	1,761	1,056	—	—	11	1,056	60	6,779
1977	15,375	66	1,772	62	2,026	1,208	—	—	10	1,208	76	10,370
1978	14,334	52	2,013	66	2,406	1,360	—	—	9	1,360	73	8,554
1979	17,006	79	2,008	68	3,719	1,352	—	—	9	1,352	60	9,927
1980	17,311	74	1,596	76	4,643	1,638	—	—	10	1,638	66	9,435
1981	15,147	55	1,641	74	4,904	1,308	—	—	10	1,308	53	7,294

* Supply allowance for a previous year's award.

Table 16
NIH AWARDS BY NIH COMPONENT AND FUNDING MECHANISM, FISCAL YEAR 1981
(Dollars in Thousands)

NIH component	Total amount	Research and development										Research training			
		Grants								Contracts		Individual awards		Institutional grants	
		Total		Projects		Centers		Other							
		Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Total	\$2,883,673*†	20,229	\$2,302,843	16,908	\$1,767,142	520	\$339,425	2,801	\$196,276	1,287	\$359,634	1,752	\$35,497	1,359	\$144,915
NIA	53,629	486	46,134	410	41,880	1	228	75	4,026	16	4,897	31	650	27	1,948
NIAID	179,010	1,649	158,109	1,524	150,417	23	3,976	102	3,717	76	12,156	105	2,048	72	6,698
NIADDK	308,595	2,839	281,436	2,515	249,181	42	20,681	282	11,574	41	7,349	180	3,639	246	16,170
NCI	754,260†	3,564	493,358	2,824	354,854	69	71,627	671	66,878	644	209,410	205	4,031	175	22,224
NICHD	180,785	1,418	155,037	1,278	129,110	43	22,349	97	3,578	115	16,664	64	1,268	89	7,817
NIDR	48,246	417	41,513	375	31,250	8	9,178	34	1,085	20	2,378	68	1,330	38	3,025
NIEHS	58,024†	343	43,678	306	33,285	14	9,603	23	789	36	7,441	32	614	46	5,891
NEI	100,772	1,068	93,041	955	85,040	31	4,228	82	3,773	28	3,799	74	1,421	35	2,511
NIGMS	322,293	2,901	268,168	2,829	253,525	22	12,847	50	1,795	2	775	370	7,186	300	46,164
NHLBI	470,340	2,774	371,205	2,396	290,395	62	63,604	316	17,206	204	67,772	223	4,423	254	26,940
NINCDS	200,239	1,720	178,370	1,496	148,205	33	22,171	191	7,994	70	12,662	222	4,268	68	4,939
DRR	177,771	1,050	172,794	—	—	172	98,934	878	73,861	13	4,369	1	19	9	588
FIC	4,601	—	—	—	—	—	—	—	—	—	—	177	4,601	—	—
Other‡	9,962	—	—	—	—	—	—	—	—	22	9,962	—	—	—	—

* NLM is shown in total only. † NCI construction and control grants and NCI and NIEHS cooperative agreements are shown in totals only. ‡ CC, DCRT, DRG, DRS, AND OD.

Table 17
NIH AWARDS BY STATE AND FUNDING MECHANISM, FISCAL YEAR 1981
(Thousands of Dollars)

State	Total	Institutes and Research Divisions									NLM awards
		Research and development					Research training			Cancer construction grants	
		Grants				Contracts	Total	Indiv. awards	Inst'l grants		
		Total	Projects	Centers	Other						
Total	\$2,883,673 *†	\$2,302,843	\$1,767,142	\$339,425	\$198,276	\$359,634	\$180,413	\$35,497	\$144,915	\$2,027	\$15,147
U.S. total	2,859,733 *†	2,289,658	1,754,809	339,425	195,423	350,407	179,285	34,370	144,915	2,027	15,147
Alabama	43,226 *	33,273	18,760	8,538	5,975	7,473	2,146	258	1,888	—	105
Alaska	346	346	246	—	100	—	—	—	—	—	—
Arizona	17,694	15,374	12,507	1,711	1,156	1,567	692	182	510	33	29
Arkansas	1,761	1,677	1,290	—	388	—	43	43	—	—	41
California	407,720 *	328,128	265,948	40,818	21,362	45,302	28,114	6,420	21,695	375	2,347
Colorado	36,011 *	32,101	25,866	3,874	2,362	353	3,305	676	2,629	—	—
Connecticut	79,143 *	67,601	59,623	4,992	2,987	3,733	7,350	1,391	5,958	—	107
Delaware	1,551	1,470	912	—	557	76	6	6	—	—	—
Dist. of Col.	32,410 *	20,783	12,895	2,861	5,027	9,450	941	110	831	—	732
Florida	42,181 *	34,336	27,332	2,872	4,133	5,563	1,767	136	1,631	—	128
Georgia	29,892	26,015	16,911	5,042	4,062	2,420	1,445	198	1,247	—	12
Hawaii	9,693	6,028	4,419	548	1,061	3,555	111	33	78	—	—
Idaho	582	475	366	—	109	79	—	—	—	—	29
Illinois	103,818 *	84,792	66,458	12,196	6,139	8,534	8,037	969	7,068	318	718
Indiana	28,060 *	24,745	20,299	2,596	1,849	1,450	1,766	228	1,538	—	41

* Cancer control grants are shown in totals only. † NCI and NIEHS cooperative agreements are shown in totals only. ‡ Awards to U.S. citizens as well as to foreign nationals.

(Continued)

Table 17 (Cont.)
NIH AWARDS BY STATE AND FUNDING MECHANISM, FISCAL YEAR 1981
(Thousands of Dollars)

State	Total	Institutes and Research Divisions								NLM awards	
		Research and development				Research training			Cancer construction grants		
		Grants				Contracts	Total	Indiv. awards			Inst'l grants
		Total	Projects	Centers	Other						
Iowa	\$ 28,355 *	\$ 23,046	\$ 16,900	\$ 3,805	\$ 2,341	\$ 3,158	\$ 1,988	\$ 263	\$ 1,725	\$ —	\$ 66
Kansas	12,211	10,574	8,475	720	1,380	858	591	93	498	—	11
Kentucky	8,054 *	6,704	5,593	—	1,111	537	142	54	88	—	18
Louisiana	21,105	18,290	10,870	4,884	2,537	1,851	851	109	742	—	112
Maine	5,704	5,222	4,788	231	204	46	239	61	178	—	196
Maryland	173,213 *	73,105	55,927	11,418	5,760	88,919	7,924	2,752	5,172	—	2,659
Massachusetts	291,229 *	238,657	194,788	29,927	13,941	28,325	20,395	4,856	15,539	—	1,808
Michigan	75,082 *	60,379	47,640	8,227	4,512	8,795	4,634	654	3,980	—	559
Minnesota	70,188 *	56,931	42,157	6,087	8,687	7,912	4,585	902	3,683	—	217
Mississippi	7,363	6,857	5,051	—	1,806	8	497	82	416	—	—
Missouri	69,657	55,652	38,968	11,945	4,739	8,053	5,818	680	5,138	—	134
Montana	1,061	936	737	—	199	—	—	—	—	—	125
Nebraska	6,850	5,974	5,136	102	736	194	191	92	99	—	490
Nevada	562	562	528	—	34	—	—	—	—	—	—
New Hampshire	8,406 *	7,333	5,477	1,048	808	147	356	85	271	—	28
New Jersey	25,154	18,857	16,933	889	1,035	4,621	1,431	258	1,173	—	246
New Mexico	11,887	10,519	7,308	973	2,238	1,004	325	18	306	—	40
New York	393,485 *	347,744	269,151	53,309	25,284	18,109	23,264	3,730	19,534	743	476
North Carolina	89,155 *	70,100	51,494	13,177	5,429	9,494	8,503	1,454	7,049	—	562

See footnotes at beginning of table.

(Continued)

Table 17 (Cont.)
NIH AWARDS BY STATE AND FUNDING MECHANISM, FISCAL YEAR 1981
(Thousands of Dollars)

State	Total	Institutes and Research Divisions								NLM awards	
		Research and development					Research training				Cancer construction grants
		Grants				Contracts	Total	Indiv. awards	Inst'l grants		
		Total	Projects	Centers	Other						
North Dakota	\$ 686	\$ 682	\$ 639	\$ —	\$ 43	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 4
Ohio	79,624 *	61,776	46,445	10,384	4,947	13,074	3,479	410	3,068	—	347
Oklahoma	7,467	6,728	5,684	—	1,044	375	364	70	294	—	—
Oregon	26,508 *	23,044	15,287	6,150	1,607	1,516	1,576	510	1,066	—	4
Pennsylvania	173,908 * †	146,547	111,798	24,415	10,334	14,790	8,897	1,413	7,484	—	882
Rhode Island	12,314 *	10,602	7,812	1,221	1,569	884	534	123	411	—	—
South Carolina	12,149	9,755	6,940	1,339	1,476	1,742	624	135	489	—	28
South Dakota	2,572	437	346	—	91	2,112	—	—	—	—	23
Tennessee	47,048 *	41,903	24,772	11,448	5,682	975	3,842	567	3,275	—	38
Texas	134,934 *	115,369	85,411	17,761	12,198	12,198	6,495	1,151	5,344	—	384
Utah	26,218	21,297	18,457	1,075	1,766	3,819	1,029	174	855	—	73
Vermont	9,492 *	8,745	5,001	3,090	654	366	280	142	137	—	—
Virginia	49,877	29,838	22,662	3,393	3,783	15,798	3,666	683	3,002	—	556
Washington	77,896 *	62,338	43,481	15,046	3,812	7,014	6,188	1,369	4,819	559	332
West Virginia	2,566	2,066	1,674	—	392	300	182	—	182	—	19
Wisconsin	58,955 *	50,199	35,958	10,473	3,768	3,337	4,255	673	3,581	—	388
Wyoming	595	560	461	—	99	—	—	—	—	—	34
Puerto Rico	4,111	3,185	232	841	2,112	524	402	158	243	—	—
Foreign ‡	23,940 †	13,186	12,333	—	853	9,227	1,128	1,128	—	—	—

See footnotes at beginning of table.

Table 18
NIH AWARDS BY KIND OF PERFORMING INSTITUTION, FISCAL YEARS 1972-1981
(Dollars in Thousands)

Performing institution	1972		1974		1976		1978		1980		1981	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Total	\$1,253,650	100.0%	\$1,680,500	100.0%	\$1,830,492	100.0%	\$2,252,138	100.0%	\$2,788,598	100.0%	\$2,883,673	100.0%
Domestic	1,244,765	99.3	1,668,350	99.3	1,815,363	99.2	2,229,361	99.0	2,763,077	99.1	2,859,733	99.2
Nonprofit	1,176,930	93.9	1,564,123	93.1	1,677,476	91.6	2,094,855	93.0	2,602,510	93.3	2,715,018	94.2
Higher education* Medical schools*†	941,421 ‡	75.1 ‡	1,222,930 853,619	72.8 50.8	1,312,441 893,216	71.1 48.8	1,648,829 1,151,616	73.2 51.1	2,061,288 1,429,156	73.9 51.2	2,161,998 1,506,542	75.0 52.2
Government	32,681	2.6	53,302	3.2	39,681	2.2	46,386	2.1	51,795	1.9	51,829	1.8
Federal	4,636	0.4	5,051	0.3	4,799	0.3	4,903	0.2	6,115	0.2	3,993	0.1
Research institutes	2,548	0.2	1,707	0.1	1,208	0.1	1,741	0.1	3,981	0.1	2,440	0.1
Hospitals	1,265	0.1	1,931	0.1	1,523	0.1	1,093	0.1	1,113	§	779	§
Other	822	0.1	1,412	0.1	2,067	0.1	2,069	0.1	1,022	§	774	§
State and local	28,025	2.2	48,251	2.9	34,882	1.9	41,483	1.8	45,679	1.6	47,835	1.7
Research institutes	2,082	0.2	2,011	0.1	2,145	0.1	1,976	0.1	3,330	0.1	1,447	0.1
Hospitals	20,580	1.6	35,113	2.1	22,275	1.2	23,968	1.1	28,385	1.0	30,032	1.0
Other	5,362	0.4	11,127	0.7	10,463	.06	15,539	0.7	13,964	0.5	16,357	0.6
Other nonprofit	202,849	16.2	287,890	17.1	325,354	17.8	399,640	17.7	489,429	17.6	501,192	17.4
Research institutes	96,717	7.7	140,292	8.3	168,465	9.2	206,799	9.2	269,307	9.7	275,582	9.6
Hospitals	81,758	6.5	116,702	6.9	120,182	6.6	140,466	6.2	165,242	5.9	170,998	5.9
Other	24,374	1.9	30,896	1.8	36,707	2.0	52,375	2.3	54,880	2.0	54,612	1.9
Profit	67,835	5.4	104,227	6.2	137,886	7.5	134,506	6.0	160,567	5.8	144,715	5.0
Research institutes	41,604	3.3	63,631	3.8	94,950	5.2	89,566	4.0	91,850	3.3	86,387	3.0
Other	26,231	2.1	40,596	2.4	42,936	2.3	44,940	2.0	68,717	2.5	58,328	2.0
Foreign [◇]	8,884	0.7	12,150	0.7	15,129	0.8	22,778	1.0	25,521	0.9	23,940	0.8

*Includes all hospitals owned by these institutions. †Includes basic health-science departments administered by schools of medicine and medicine/dentistry. ‡Not available. §Less than 0.05 percent. ||Independent hospitals not owned by institutions classified as Higher Education, Government, or Research Institutes. ◇Awards to U.S. citizens as well as to foreign nationals.

Table 19
NIH AWARDS BY KIND OF PERFORMING INSTITUTION AND FUNDING MECHANISM, FISCAL YEAR 1981
(Dollars in Thousands)

Performing institution	Total			Institutes and Research Divisions								
				Research and development								
				Grants								
				Total			Projects		Centers		Other	
	No. of inst. *	Amount	Percent	No. of inst. *	Amount	Percent	Number	Amount	Number	Amount	Number	Amount
Total	1,212	\$2,883,673[†]	100.0%	845	\$2,302,843	100.0%	16,908	\$1,767,142	520	\$339,425	2,801	\$196,276
Domestic	1,063	2,859,733 [†]	99.2	741	2,289,658	99.4	16,689	1,754,809	520	339,425	2,784	195,423
Nonprofit	911	2,715,018 [†]	94.2	741	2,289,658	99.4	16,689	1,754,809	520	339,425	2,784	195,423
Higher education [†]	402	2,161,998 [†]	75.0	390	1,867,836	81.1	14,105	1,436,740	433	274,185	2,260	156,911
Medical schools ^{‡§}	121	1,506,542 [†]	52.2	121	1,295,268	55.7	8,947	970,729	340	226,473	1,425	98,067
Government	98	51,829 [†]	1.8	55	34,335	1.5	276	26,606	7	3,443	58	4,286
Federal	34	3,993 [†]	0.1	17	1,178	0.1	16	979	—	—	6	199
Research institutes	14	2,440 [†]	0.1	3	379		4	379	—	—	—	—
Hospitals	16	779 [†]		12	726		12	600	—	—	4	127
Other	4	774 [†]		2	72		—	—	—	—	2	72
State and local	64	47,835 [†]	1.7	38	33,158	1.4	260	25,627	7	3,443	52	4,088
Research institutes	5	1,447 [†]	0.1	5	1,447	0.1	24	1,382	—	—	3	65
Hospitals	28	30,032 [†]	1.0	16	26,150	1.1	180	19,209	6	3,322	44	3,619
Other	31	16,357 [†]	0.6	17	5,561	0.2	56	5,036	1	121	5	404
Other nonprofit	411	501,192 [†]	17.4	296	387,486	16.8	2,308	291,463	80	61,797	466	34,226
Research institutes	151	275,582 [†]	9.6	132	209,953	9.1	1,206	160,065	37	37,477	167	12,411
Hospitals [◊]	169	170,998 [†]	5.9	113	144,838	6.3	935	112,230	31	18,217	222	14,391
Other	91	54,612 [†]	1.9	51	32,695	1.4	167	19,168	12	6,103	77	7,424
Profit* *	152	144,715	5.0	—	—	—	—	—	—	—	—	—
Foreign ^{††}	149	23,940 [†]	0.8	104	13,186	0.6	219	12,333	—	—	17	853

* A multicampus university (including its components) is counted as one; separately organized components of an institution are counted individually. [†]Cancer control grants and NCI and NIEHS cooperative agreements are included in totals only. [‡]Includes hospitals owned by these institutions. (Footnotes continued on next page.)

Table 19 (Cont.)
NIH AWARDS BY PERFORMING INSTITUTION AND FUNDING MECHANISM, FISCAL YEAR 1981
(Dollars in Thousands)

Performing institution	Institutes and Research Divisions											NLM awards	
	Research and develop., (cont.)			Research training						Cancer constr. grants			
				Total		Individual awards		Institutional grants					
	Contracts			Total		Individual awards		Institutional grants		Cancer constr. grants		NLM awards	
No. of inst. *	Number	Amount	No. of inst. *	Amount	Number	Amount	Number	Amount	No. of inst. *	Amount	No. of inst. *	Amount	
Total	466	1,287	\$359,634	302	\$180,413	1,752	\$35,497	1,359	\$144,915	6	\$2,027	149	\$15,147
Domestic	426	1,228	350,407	271	179,285	1,699	34,370	1,359	144,915	6	2,027	149	15,147
Nonprofit	299	929	209,089	271	179,285	1,699	34,370	1,359	144,915	6	2,027	120	11,750
Higher education [‡]	123	540	111,844	182	160,986	1,406	28,438	1,219	132,548	6	2,027	54	8,364
Medical schools [§]	93	397	86,169	100	109,268	825	16,960	874	92,308	5	1,653	30	5,272
Government	25	36	13,138	18	3,305	120	2,388	13	917	—	—	11	195
Federal	2	4	688	11	2,126	108	2,126	—	—	—	—	—	—
Research institutes	—	—	—	8	2,060	105	2,060	—	—	—	—	—	—
Hospitals	—	—	—	2	52	2	52	—	—	—	—	—	—
Other	2	4	688	1	14	1	14	—	—	—	—	—	—
State and local	23	32	12,450	7	1,179	12	262	13	917	—	—	11	195
Research institutes	—	—	—	—	—	—	—	—	—	—	—	—	—
Hospitals	8	13	1,977	5	1,079	9	203	11	878	—	—	8	119
Other	15	19	10,473	2	98	3	59	2	39	—	—	3	76
Other nonprofit	151	353	84,107	71	14,994	173	3,544	127	11,450	—	—	55	3,191
Research institutes	56	174	51,419	35	6,833	103	2,085	45	4,748	—	—	5	502
Hospitals [◇]	65	103	16,311	27	6,260	57	1,198	59	5,062	—	—	30	1,486
Other	30	76	16,376	9	1,902	13	261	23	1,641	—	—	20	1,203
Profit * *	127	299	141,318	—	—	—	—	—	—	—	—	29	3,397
Foreign ^{††}	40	59	9,227	31	1,128	53	1,128	—	—	—	—	—	—

[§]Includes basic health-science departments administered by schools of medicine/dentistry. ^{||}Less than 0.05 percent. [◇]Independent hospitals not owned by institutions classified as Higher Education, Government, or Research Institutes. * *Includes \$86.4 million to research institutes. ^{††}Awards to U.S. citizens as well as to foreign nationals.

Table 20
NIH AWARDS TO U.S. INSTITUTIONS OF HIGHER EDUCATION BY COMPONENT AND FUNDING MECHANISM, FISCAL YEAR 1981
(Dollars in Thousands)

Major component	Total		Institutes and Research Divisions							
			Research and development							
			Grants							
			Total		Projects		Centers		Other	
	Amount	Percent	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Total — all Institutions *	\$2,883,673 [†]	100.0%	20,229	\$2,302,843	16,908	\$1,767,142	520	\$338,425	2,801	\$196,278
Total — higher education	2,161,998 [†]	75.0	16,798	1,867,836	14,105	1,436,740	433	274,185	2,260	156,911
Health professional components	1,674,005 [†]	58.1	11,980	1,430,495	9,951	1,075,531	366	243,773	1,663	111,190
Medical schools [‡]	1,506,542 [‡]	52.2	10,712	1,295,268	8,947	870,729	340	226,473	1,425	99,087
Public health	48,899 [†]	1.7	222	33,755	183	29,902	3	1,931	36	1,922
Hospitals [§]	27,865 [†]	1.0	106	23,569	80	16,833	4	3,474	22	3,263
Dentistry	36,097 [†]	1.3	334	31,983	247	21,113	7	7,450	80	3,420
Veterinary medicine	21,604	0.7	196	18,567	161	14,310	7	3,022	28	1,235
Pharmacy	22,124	0.8	277	18,208	220	14,671	3	1,106	54	2,431
Other	10,874 [†]	0.4	133	9,144	113	7,974	2	318	18	852
Schools of A&S and graduate schools	362,114 [†]	12.6	3,841	326,018	3,328	276,911	42	13,389	471	35,718
Other components	125,879 [†]	4.4	977	111,323	826	84,298	25	17,023	126	10,003
Organized research units	45,893 [†]	1.6	261	40,073	238	33,194	12	5,306	11	1,573
Engineering	26,140	0.9	239	23,255	215	21,092	2	1,254	22	909
Agriculture	25,193	0.9	322	22,957	295	21,610	3	341	24	1,006
University-wide	5,948	0.2	53	5,725	—	—	—	—	53	5,725
Other	22,705 [†]	0.8	102	19,314	78	8,401	8	10,122	16	790

* Includes foreign. [†] Cancer control grants and NCI and NIEHS cooperative agreements are included in totals only. [‡] Includes basic health-science departments administered by schools of medicine and medicine/dentistry. [§] Hospitals administered by institutions of higher education, except those administered by medical schools (e.g., Univ. of Texas System Cancer Center, \$18.6 million).

(Continued)

Table 20 (Cont.)
NIH AWARDS TO U.S. INSTITUTIONS OF HIGHER EDUCATION BY COMPONENT AND FUNDING MECHANISM, FISCAL YEAR 1981
(Dollars in Thousands)

Major component	Institutes and Research Divisions									NLM awards
	Research and dev. (cont.)		Research training				Cancer constr. grants			
			Contracts	Total amount	Individual awards				Institutional grants	
	Number	Amount	Number		Amount	Number	Amount	Number	Amount	
Total — all institutions *	1,287	\$359,634	\$180,413	1,752	\$35,497	1,359	\$144,915	6	\$2,027	\$15,147
Total — higher education	540	111,844	160,986	1,406	28,438	1,219	132,548	6	2,027	8,364
Health professional components	484	104,032	121,989	905	18,632	994	103,357	5	1,653	5,669
Medical schools [‡]	397	86,169	109,268	825	16,960	874	92,308	5	1,653	5,272
Public health	41	9,323	5,205	14	324	43	4,881	—	—	48
Hospitals [§]	13	3,119	672	1	7	5	665	—	—	178
Dentistry	5	741	3,174	41	826	30	2,348	—	—	—
Veterinary medicine	9	1,299	1,738	16	333	19	1,405	—	—	—
Pharmacy	12	2,486	1,296	3	67	14	1,229	—	—	135
Other	7	894	636	5	116	9	521	—	—	37
Schools of A&S and graduate schools	26	2,216	32,354	424	8,272	180	24,083	1	375	629
Other components	30	5,597	6,642	77	1,535	45	5,108	—	—	2,066
Organized research units	11	2,764	2,371	25	501	15	1,870	—	—	463
Engineering	6	1,233	1,354	15	294	11	1,060	—	—	298
Agriculture	3	243	1,993	25	525	11	1,468	—	—	—
University-wide	1	151	72	—	—	1	72	—	—	—
Other	9	1,207	852	12	215	7	637	—	—	1,305

See footnotes at beginning of table.

Table 21
NIH AWARDS BY NIH COMPONENT AND PERFORMING INSTITUTION, FISCAL YEAR 1981
(Thousands of Dollars)

NIH component	Total	Domestic nonprofit institutions								Domestic profit institutions			Foreign institutions [‡]
		Total	Higher education				Other nonprofit			Total	Research institutes	Other	
			Total	Medical schools [*]	Other health professional schools	Other	Research institutes	Hospitals [†]	Other				
Total	\$2,883,673	\$2,715,018	\$2,161,998	\$1,506,542	\$167,463	\$487,993	\$279,469	\$201,809	\$71,742	\$144,715	\$86,387	\$58,328	\$23,940
I/RD—Total	2,868,526	2,703,268	2,153,634	1,501,270	167,066	485,296	278,967	200,204	70,464	141,318	86,308	55,010	23,940
NIA	53,629	51,257	40,948	24,630	2,280	14,037	5,529	4,257	523	1,974	1,257	717	399
NIAID	179,010	175,540	143,245	100,528	9,454	33,262	18,025	11,833	2,438	2,323	1,304	1,019	1,146
NIADDK	308,595	304,826	256,230	214,402	9,086	32,742	13,255	30,700	4,640	946	317	629	2,823
NCI	754,260	637,105	407,823	302,539	41,796	63,488	144,051	54,490	30,741	108,319	69,913	38,406	8,835
NICHD	180,785	175,383	143,594	93,361	11,124	39,109	15,981	12,623	3,185	3,712	3,328	384	1,690
NIDR	48,246	47,143	40,894	10,175	27,685	3,035	3,861	1,187	1,201	517	437	80	566
NIEHS	58,024	54,300	48,322	24,457	10,045	13,820	4,626	491	861	2,647	2,273	374	1,078
NEI	100,772	99,889	84,205	62,564	5,035	16,606	7,858	7,546	280	—	—	—	883
NIGMS	322,293	321,198	293,094	138,424	7,677	146,994	17,316	8,669	2,118	—	—	—	1,095
NHLBI	470,340	457,931	377,890	320,236	23,830	33,824	24,132	41,520	14,390	9,210	6,371	2,839	3,198
NINCDS	200,239	196,876	167,181	130,047	6,713	30,421	12,328	13,341	4,026	1,301	792	509	2,062
DRR	177,771	174,300	145,847	76,405	12,093	57,348	10,287	13,357	4,810	3,471	301	3,169	—
FIC	4,601	4,557	3,053	2,371	168	514	1,216	191	97	—	—	—	44
Other [§]	9,962	2,964	1,308	1,131	80	96	501	—	1,156	6,898	14	6,884	100
NLM	15,147	11,750	8,364	5,272	397	2,695	502	1,605	1,279	3,397	79	3,318	—

* Includes basic health-science departments administered by schools of medicine and medicine/dentistry. [†] Nonprofit hospitals not owned by schools or research institutes. [‡] Awards to U.S. citizens as well as to foreign nationals. [§] CC, DCRT, DRG, DRS, and OD.

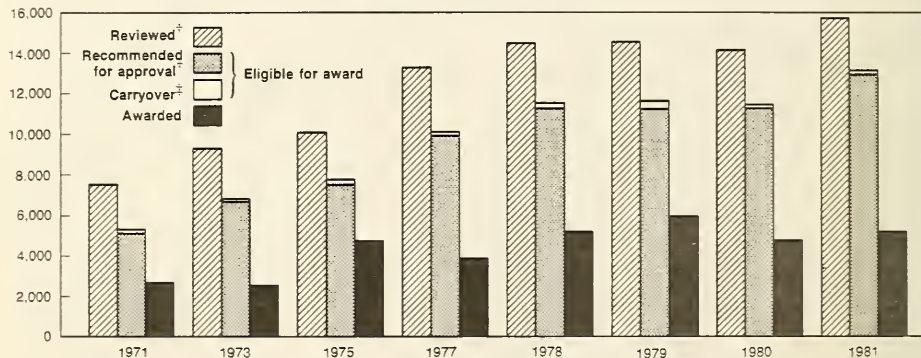
Table 22
NIH AWARDS TO U.S. MEDICAL SCHOOLS BY FUNDING MECHANISM, FISCAL YEARS 1971-1981 *
(Dollars in Thousands)

Fiscal year	Total amount [†]	Institutes and Research Divisions											NLM awards
		Research and development				Research training					Construction grants		
		Grants		Contracts		Total amount	Individual awards		Institutional grants				
		Number	Amount	Number	Amount		Number	Amount	Number	Amount	Number	Amount	Amount
1971	\$ 479,229	6,495	\$ 382,684	‡	\$ ‡	\$ 95,460	1,029	\$10,257	1,428	\$ 85,203	—	\$ —	\$1,085
1972	565,946	6,580	453,787	‡	‡	99,356	917	9,383	1,363	89,973	4	11,292	1,511
1973	637,667	6,429	464,803	530	74,942	75,037	524	5,518	1,137	69,519	9	18,310	4,574
1974	853,619	7,306	603,376	693	111,430	116,291	1,105	15,314	1,915	100,976	5	14,525	5,150
1975	875,922	7,421	637,152	737	119,329	95,832	979	13,406	1,131	82,426	7	17,029	4,578
1976	893,216	7,793	693,481	689	111,675	71,883	806	11,466	810	60,416	8	8,327	3,557
1977	995,290	7,917	770,930	782	126,378	77,461	930	12,998	762	64,463	6	9,624	3,920
1978	1,151,616	8,709	907,495	720	135,140	90,294	1,011	14,616	861	75,678	8	8,387	4,376
1979	1,338,926	10,035	1,086,914	673	144,754	89,659	1,055	15,488	819	74,171	5	5,950	4,248
1980	1,429,156	10,511	1,192,163	498	109,481	110,532	959	18,948	989	91,584	3	3,860	5,252
1981	1,506,542	10,712	1,295,268	397	86,169	109,268	825	16,960	874	92,308	5	1,653	5,272

* Includes basic health-science departments administered by schools of medicine and medicine/dentistry. [†] Cancer control grants, which began in 1974, are included in totals only.

[‡] Not available.

Figure 3
 NUMBER OF APPLICATIONS FOR NIH COMPETING RESEARCH PROJECTS
 REVIEWED, RECOMMENDED FOR APPROVAL BY COUNCILS, AND AWARDED,
 SELECTED FISCAL YEARS 1971-1981*



* Excludes NLM. Represents grants coded R01 (except DRR), R22, R23, and P01. Original applications and their amendments for the same fiscal year are counted as one. [†]Reviewed and recommended for funding in year shown. [‡]Approvals carried over from a prior year and funded in the year shown.

Table 23
APPLICATIONS FOR NIH COMPETING RESEARCH PROJECTS REVIEWED,
RECOMMENDED FOR APPROVAL BY COUNCILS, AND AWARDED, FISCAL YEARS 1971-1981 *
(Dollars in Thousands)

Fiscal year	Reviewed		Council recommended for approval [†]		Total eligible for funding		Awarded	
	Number	Amount	Number	Amount	Number [‡]	Amount	Number	Amount
1971	7,579	\$ 433,882	5,215	\$ 230,019	5,301	\$ 233,647	2,691	\$132,960
1972	8,596	547,711	6,008	295,018	6,141	299,847	3,625	194,184
1973	9,306	674,411	6,631	352,211	6,668	354,341	2,592	166,028
1974	9,448	738,924	7,061	397,773	7,803	434,325	4,540	307,280
1975	10,093	819,532	7,510	438,488	7,701	446,742	4,663	298,328
1976	10,050	896,783	7,162	465,132	7,171	465,931	3,464	263,002
1977	13,304	1,267,582	9,851	681,584	9,932	686,759	3,840	306,897
1978	14,502	1,403,379	11,251	798,921	11,489	818,964	5,200	420,850
1979	14,458	1,538,212	11,208	897,539	11,510	916,042	5,944	525,473
1980	14,142	1,571,644	11,220	969,312	11,301	976,916	4,785	472,484
1981	15,731	1,897,526	12,939	1,233,805	13,027	1,240,975	5,109	545,036

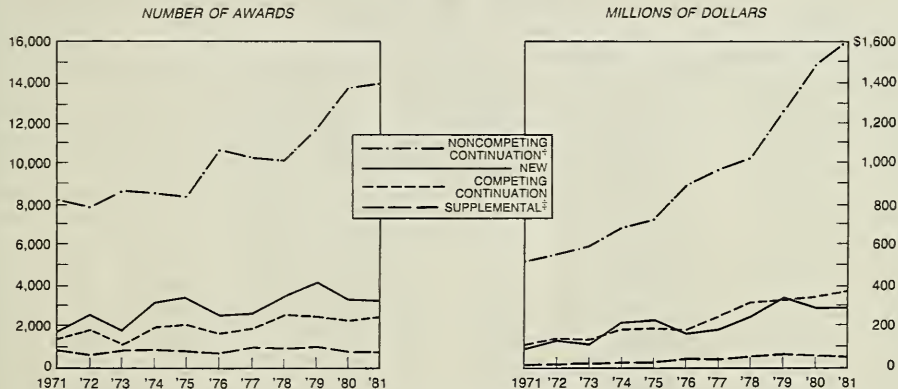
*Excludes NLM. Represents grants coded R01 (except DRR), R22, R23, and P01. Original applications and their amendments for the same fiscal year are counted as one. As in other award tables, dollar figures represent total cost (direct and indirect). Indirect costs included under "Reviewed," "Recommended," and "Total eligible for funding" are based on indirect cost rates for each BID's funded applications in year shown. [†]Reviewed and recommended for funding in year shown. [‡]Council recommended, plus those approvals from a prior year which were funded in year shown.

Table 24
AWARD RATES FOR NIH COMPETING RESEARCH PROJECTS BY NIH COMPONENT,
FISCAL YEARS 1971, 1976, AND 1978-1981

NIH component	Number awarded						Award rates*					
	1971	1976	1978	1979	1980	1981	1971	1976	1978	1979	1980	1981
Total	2,691	3,464	5,200	5,944	4,785	5,109	50.8%	48.3%	45.3%	51.6%	42.3%	39.2%
NIA [†]	—	30	85	214	131	118	—	26.1	34.1	48.5	32.0	23.6
NIAID	280	181	397	537	452	433	46.2	26.9	36.4	48.6	38.3	34.9
NIADDK	443	447	685	769	698	759	47.1	50.6	42.1	50.0	42.8	41.0
NCI	330	674	886	901	773	814	59.1	49.6	43.4	43.9	39.0	35.8
NICHHD	235	267	453	461	348	453	39.8	39.1	45.7	44.8	36.3	39.2
NIDR	96	95	144	131	97	143	59.3	57.6	39.5	45.5	37.7	45.1
NIEHS	50	38	119	91	87	113	57.5	34.9	45.2	41.0	35.1	47.5
NEI	115	161	350	301	217	304	67.3	64.9	64.6	65.2	52.2	52.4
NIGMS	325	630	788	1,020	890	711	36.3	59.6	46.7	58.2	58.3	40.1
NHLBI	446	707	759	942	589	774	61.9	59.3	46.7	55.4	33.8	40.7
NINCDS	371	234	534	577	503	487	64.9	34.1	53.0	62.6	52.9	40.6

*Number awarded as a percent of number eligible (recommended for approval + carryover). [†]Founded in 1974, but funded with NICHD until 1976.

Figure 4
NIH RESEARCH GRANTS BY TYPE, FISCAL YEARS 1971-1981*



* Excludes NLM. † Includes all BRS grants (\$07), of which 24 for \$0.8 million were new grants in 1981. ‡ Each supplemental grant is counted separately.

Table 25
NIH RESEARCH GRANTS BY TYPE, FISCAL YEARS 1971-1981 *
(Dollars in Thousands)

Fiscal year	Total number [‡]	Total		New		Competing continuation		Noncompeting continuation [‡]		Supplemental [‡]	
		Number [§]	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
1971	12,275	12,126	\$ 699,671	1,647	\$ 84,946	1,387	\$102,938	8,341	\$ 502,235	900	\$ 9,522
1972	12,768	12,568	825,535	2,408	132,202	1,665	125,464	7,859	554,713	836	13,156
1973	12,556	12,310	837,476	1,720	101,799	1,169	124,324	8,738	592,859	929	18,494
1974	14,585	14,311	1,093,470	3,090	207,622	1,874	179,752	8,685	686,452	936	19,643
1975	14,699	14,480	1,141,340	3,388	214,031	1,962	189,391	8,469	718,976	880	18,942
1976	15,475	15,230	1,263,551	2,411	157,462	1,525	173,976	10,692	898,483	847	33,631
1977	15,608	15,426	1,417,196	2,550	183,545	1,841	236,648	10,220	962,715	997	34,287
1978	16,824	16,623	1,617,991	3,471	244,014	2,364	305,986	10,009	1,029,453	980	38,537
1979	19,332	19,039	1,928,636	4,247	322,090	2,296	311,797	11,742	1,252,298	1,047	42,452
1980	20,116	19,865	2,132,735	3,241	278,095	2,115	339,229	13,793	1,475,369	967	40,043
1981	20,412	20,229	2,302,843	3,135	278,713	2,427	380,679	13,982	1,607,293	866	36,159

* Excludes NLM. [‡]Each supplemental grant is counted separately. [‡]Includes all BRS grants (\$07), of which 24 for \$0.8 million were new grants in 1981.

[§]Supplemental grants are counted only when the parent award is from prior years' funds; such supplements, if multiple, are counted as one.

Table 26
NIH COMPETING AND NONCOMPETING RESEARCH GRANTS BY NIH COMPONENT AND TYPE, FISCAL YEAR 1981
(Dollars in Thousands)

NIH component	Total number *	Total		New		Competing continuation		Noncompeting continuation †		Supplemental *			
										Competing		Noncompeting	
		Number ‡	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Total	20,412	20,229	\$2,302,843	3,135	\$278,713	2,427	\$380,679	13,982	\$1,607,293	197	\$8,960	671	\$27,199
NIA	487	486	46,134	107	9,235	31	5,321	342	31,442	1	30	6	106
NIAID	1,664	1,649	158,109	253	22,437	179	23,008	1,194	111,567	16	509	22	588
NIADDK	2,851	2,839	281,436	455	34,854	344	46,146	1,956	197,826	21	665	75	1,944
NCI	3,618	3,564	493,358	561	58,718	461	90,653	2,252	330,012	47	1,113	297	12,863
NICHD	1,420	1,418	155,037	300	24,354	180	23,173	901	106,576	5	75	34	858
NIDR	418	417	41,513	87	6,469	66	6,870	256	27,792	1	23	8	359
NIEHS	344	343	43,678	80	6,136	41	7,564	212	29,420	—	—	11	558
NEI	1,074	1,068	93,041	157	13,064	150	16,523	704	62,119	6	215	57	1,119
NIGMS	2,916	2,901	268,168	329	30,249	368	46,663	2,158	189,592	26	991	35	672
NHLBI	2,810	2,774	371,205	519	47,180	307	52,604	1,873	266,683	39	3,102	72	1,636
NINCDS	1,729	1,720	178,370	272	23,239	240	30,614	1,177	122,182	11	326	29	2,008
DRR	1,081	1,050	172,794	15	2,777	60	31,540	957	132,081	24	1,911	25	4,486

* Each supplemental grant is counted separately. † Includes all BRS grants (\$07), of which 24 for \$0.8 million were new grants in 1981. ‡ Supplemental grants are counted only when the parent award is from prior years' funds; such supplements, if multiple, are counted as one.

Table 27
NIH COMPETING AND NONCOMPETING RESEARCH GRANTS BY KIND AND TYPE, FISCAL YEAR 1981*
(Dollars in Thousands)

Kind of grant and code	Total number [†]	Total		New		Competing continuation		Noncompeting continuation [‡]		Supplemental [§]			
										Competing		Noncompeting	
		Number [§]	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Total I/RD	20,412	20,229	\$2,302,843	3,135	\$278,713	2,427	\$380,679	13,982	\$1,607,293	197	\$8,960	671	\$27,199
Research projects	17,035	16,908	1,767,142	2,784	253,960	2,175	284,972	11,370	1,204,936	148	6,346	558	16,927
Traditional (R01)	15,652	15,549	1,402,628	2,397	211,896	2,084	230,076	10,538	946,247	123	4,165	510	10,244
Research program projects (P01)	571	549	325,427	43	24,840	81	53,533	382	238,279	24	2,171	41	6,603
Other (R22, R23)	812	810	39,088	344	17,224	10	1,363	450	20,410	1	10	7	80
Research centers	554	520	339,425	24	9,562	88	68,112	367	251,742	26	2,002	49	8,007
Specialized (P50)	165	158	108,128	10	5,827	14	12,295	128	88,973	2	125	11	909
Core grants (P30)	149	148	100,952	6	2,286	32	28,106	94	67,987	1	18	16	2,555
General clinical (M01)	94	75	59,858	—	—	18	14,168	57	44,971	18	701	1	18
Comprehensive (P60)	44	42	31,411	—	—	6	3,296	32	27,490	2	290	4	335
Primate res. ctr. grants (P51)	8	8	17,218	—	—	2	4,537	4	9,866	—	—	2	2,814
Biotech. resource grants (P41)	47	42	15,868	3	767	8	4,491	25	8,728	2	787	9	1,095
Animal resource grants (P40)	47	47	5,990	5	681	8	1,218	27	3,727	1	82	6	282
Other research	2,823	2,801	196,276	327	15,191	164	27,595	2,245	150,614	23	611	64	2,265
RCPAs (K)	1,266	1,263	50,439	202	8,651	—	—	1,050	41,720	4	42	10	27
Biomed. res. sup & dev. (S07, S08)	546	546	46,129	—	—	—	—	546	46,129	—	—	—	—
Cooperative clinical (R10)	287	276	43,088	22	2,517	84	15,970	136	22,784	14	211	31	1,606
Minority biomed. sup. grants (S06)	88	81	24,974	3	1,230	19	6,516	57	16,611	3	340	6	276
National organ site projects (R26)	167	167	15,962	12	881	26	2,063	116	12,679	—	—	13	340
Other (R13; R18 except cancer control; R21; R24; R25; S03; DRR R01, R23)	469	468	15,684	88	1,912	35	3,046	340	10,692	2	18	4	16

* Excludes NLM. † Each supplemental grant is counted separately. ‡ Includes all BRS grants (S07), of which 24 for \$0.8 million were new grants in 1981. § Supplemental grants are counted only when the parent award is from prior years' funds; such supplements, if multiple, are counted as one.

Table 28
NIH RESEARCH GRANTS BY KIND OF GRANT AND NIH COMPONENT, FISCAL YEAR 1981*
(Dollars in Thousands)

Kind of grant and code	Total		NIA		NIAID		NIADDK		NCI		NICHD	
	Number [†]	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Total I/RD	20,229	\$2,302,843	486	\$46,134	1,649	\$158,109	2,839	\$281,436	3,564	\$493,358	1,418	\$155,037
Research projects	16,908	1,767,142	410	41,880	1,524	150,417	2,515	249,181	2,824	354,854	1,278	129,110
Traditional (R01)	15,549	1,402,628	337	27,136	1,355	125,652	2,352	217,768	2,565	235,612	1,197	105,166
Research program projects (P01)	549	325,427	36	13,197	30	14,444	45	25,494	165	114,860	50	22,308
Other (R22, R23)	810	39,088	37	1,547	139	10,321	118	5,919	94	4,382	31	1,636
Research centers	520	339,425	1	228	23	3,976	42	20,681	69	71,627	43	22,349
Specialized (P50)	158	108,128	—	—	23	3,976	—	—	1	500	19	11,955
Core grants (P30)	148	100,952	1	228	—	—	14	5,944	68	71,127	24	10,393
General clinical (M01)	75	59,858	—	—	—	—	—	—	—	—	—	—
Comprehensive (P60)	42	31,411	—	—	—	—	28	14,737	—	—	—	—
Primate res. cir. grants (P51)	8	17,218	—	—	—	—	—	—	—	—	—	—
Biotech. resource grants (P41)	42	15,868	—	—	—	—	—	—	—	—	—	—
Animal resource grants (P40)	47	5,990	—	—	—	—	—	—	—	—	—	—
Other research	2,801	196,276	75	4,026	102	3,717	282	11,574	671	66,878	97	3,578
RCPAs (K)	1,263	50,439	53	2,666	93	3,377	260	10,822	123	4,817	93	3,538
Biomed. res. sup. & dev. (S07, S08)	546	46,129	—	—	—	—	—	—	—	—	—	—
Cooperative clinical (R10)	276	43,088	—	—	—	—	—	—	255	36,870	—	—
Minority biomed. sup. grants (S06)	81	24,974	—	—	—	—	—	—	—	—	—	—
National organ site projects (R26)	167	15,962	—	—	—	—	—	—	167	15,962	—	—
Other (R13; R18 except cancer control; R21; R24; R25; S03; DRR R01, R23)	468	15,684	22	1,360	9	339	22	752	126	9,229	4	40

*Excludes NLM. [†]Supplemental grants are counted only when the parent award is from prior years' funds; such supplements, if multiple, are counted as one.

(Continued)

Table 28 (Cont.)
NIH RESEARCH GRANTS BY KIND OF GRANT AND NIH COMPONENT, FISCAL YEAR 1981*
(Dollars in Thousands)

Kind of grant and code	NIDR		NIEHS		NEI		NIGMS		NHLBI		NINCDS		DRR	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Total I/RD	417	\$41,513	343	\$43,678	1,068	\$93,041	2,901	\$268,168	2,774	\$371,205	1,720	\$178,370	1,050	\$172,794
Research projects	375	31,250	306	33,285	955	85,040	2,829	253,525	2,396	290,395	1,496	148,205	—	—
Traditional (R01)	312	25,442	262	24,157	935	84,032	2,707	234,953	2,114	209,417	1,413	113,292	—	—
Research program projects (P01)	10	3,655	15	7,912	—	—	41	16,853	92	72,708	65	33,996	—	—
Other (R22, R23, NIGMS P41)	53	2,153	29	1,216	20	1,008	81	1,720	190	8,270	18	916	—	—
Research centers	8	9,178	14	9,603	31	4,228	22	12,847	62	63,604	33	22,171	172	98,934
Specialized (P50)	8	9,178	—	—	4	571	22	12,847	48	46,930	33	22,171	—	—
Core grants (P30)	—	—	14	9,603	27	3,656	—	—	—	—	—	—	—	—
General clinical (M01)	—	—	—	—	—	—	—	—	—	—	—	—	75	59,858
Comprehensive (P60)	—	—	—	—	—	—	—	—	14	16,674	—	—	—	—
Primate res. cir. grants (P51)	—	—	—	—	—	—	—	—	—	—	—	—	8	17,218
Biotech. resource grants (P41)	—	—	—	—	—	—	—	—	—	—	—	—	42	15,868
Animal resource grants (P40)	—	—	—	—	—	—	—	—	—	—	—	—	47	5,990
Other research	34	1,085	23	789	82	3,773	50	1,795	316	17,206	191	7,994	878	73,861
RCPAs (K)	27	960	23	789	60	2,140	45	1,641	301	12,323	185	7,366	—	—
Biomed. res. sup. & dev. (S07), S08)	—	—	—	—	—	—	—	—	—	—	—	—	546	46,129
Cooperative clinical (R10)	—	—	—	—	20	1,617	—	—	1	4,601	—	—	—	—
Minority biomed. sup. grants (S06)	—	—	—	—	—	—	—	—	—	—	—	—	81	24,974
National organ site projects (R26)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other (R13; R18 except cancer control; R21; R24; R25; S03; DRR R01, R23)	7	125	—	—	2	15	5	154	14	283	6	628	251	2,758

See footnotes at beginning of table.

Table 29
NIH RESEARCH GRANTS BY KIND OF GRANT, FISCAL YEARS 1971-1981*
(Dollars in Millions)

Fiscal year	Total number [†]	Total		Research projects [‡]						Research centers			Other research		
		Number [§]	Amount	Number	Amount					No.	Amt.	Percent	No.	Amt.	Percent
					Total	Percent	R01	P01	Other						
1971	12,275	12,126	\$ 699.7	9,885	\$ 478.6	68.4%	\$ 368.6	\$105.9	\$ 4.1	402	\$129.3	18.5%	1,839	\$ 92.0	13.2%
1972	12,768	12,568	825.5	10,152	555.5	67.3	425.1	126.6	3.8	497	173.5	21.0	1,919	96.8	11.7
1973	12,556	12,310	837.5	9,869	578.3	69.1	435.6	138.6	4.1	505	186.9	22.3	1,936	72.4	8.6
1974	14,585	14,311	1,093.5	11,408	739.9	67.7	565.2	168.6	6.1	554	212.9	19.5	2,349	140.9	12.9
1975	14,699	14,480	1,141.3	11,740	779.5	68.3	598.2	175.9	5.4	555	244.4	21.4	2,185	117.7	10.3
1976	15,475	15,230	1,263.6	12,478	891.3	70.5	687.6	195.9	7.8	569	246.2	19.5	2,183	126.3	10.0
1977	15,608	15,426	1,417.2	12,592	993.6	70.1	766.9	216.8	9.9	578	282.2	19.9	2,256	141.4	10.0
1978	16,824	16,623	1,618.0	13,558	1,146.9	70.9	901.0	229.6	16.3	597	307.1	19.0	2,468	164.0	10.1
1979	19,932	19,039	1,928.6	15,770	1,402.0	72.7	1,118.6	260.1	23.3	664	339.4	17.6	2,605	187.3	9.7
1980	20,116	19,865	2,132.7	16,623	1,593.8	74.7	1,267.9	297.5	28.4	599	336.2	15.8	2,643	202.8	9.5
1981	20,412	20,229	2,302.8	16,908	1,767.1	76.7	1,402.6	325.4	39.1	520	339.4	15.9	2,801	196.3	8.5

*Excludes NLM, [†]Each supplemental grant is counted separately. [‡]Includes some NCI core support prior to 1975. Excludes DRR R01 and R23 grants (included under Other research).

[§]Supplemental grants are counted only when the parent award is from prior years' funds; such supplements, if multiple, are counted as one.

Table 30
AVERAGE SIZE OF NIH AWARDS BY KIND OF AWARD AND NIH COMPONENT, FISCAL YEARS 1971 AND 1981*
(Thousands of Dollars)

Kind of grant	Total		NIA [†]		NIAID		NIADDK		NCI		NICHD	
	1971	1981	1971	1981	1971	1981	1971	1981	1971	1981	1971	1981
Research projects	\$ 51.5	\$ 107.1	—	\$103.2	\$ 42.4	\$ 99.5	\$ 42.5	\$101.5	\$ 78.5	\$ 133.3	\$ 53.5	\$103.2
Traditional (R01)	41.7	92.6	—	81.2	40.5	93.6	38.4	94.9	55.7	98.1	41.8	89.7
Research program projects (P01)	298.9	629.6	—	385.9	335.9	506.4	208.9	591.6	400.7	759.9	232.2	463.4
Other (R22, R23)	39.3	48.5	—	41.8	48.6	74.2	58.1	50.2	—	47.8	21.6	52.8
Research centers	340.6	693.8	—	228.0	254.0	196.0	166.0	535.6	358.8	1,215.4	367.9	527.9
Specialized (P50)	339.7	709.6	—	—	127.0	196.0	287.7	—	—	500.0	296.5	629.2
Core grants (P30)	555.5	745.3	—	228.0	—	—	—	455.9	985.9	1,228.1	373.0	444.2
General clinical (M01)	463.5	798.1	—	—	—	—	—	—	—	—	—	—
Comprehensive (P60)	—	817.8	—	—	—	—	—	577.1	—	—	—	—
Primate res. ctr. grants (P51)	1,497.2	2,400.6	—	—	—	—	—	—	—	—	—	—
Biotech. resource grants (P41)	237.9	420.9	—	—	—	—	—	—	—	—	—	—
Animal resource grants (P40)	65.8	140.7	—	—	—	—	—	—	—	—	—	—
Other (P20, R07)	179.8	—	—	—	571.4	—	44.4	—	94.8	—	—	—
Other research	51.0	71.0	—	54.3	24.7	36.8	24.9	41.4	40.4	104.7	23.7	37.6
RCPAs (K)	24.5	40.3	—	51.2	24.7	36.7	25.4	41.9	24.5	40.0	23.9	38.8
Biomed. res. sup. & dev. (S07, S08)	121.3	84.5	—	—	—	—	—	—	—	—	—	—
Cooperative clinical (R10)	48.4	171.5	—	—	—	—	—	—	48.4	159.6	—	—
Minority biomed. sup. grants (S06)	—	315.4	—	—	—	—	—	—	—	—	—	—
National organ site projects (R26)	—	101.4	—	—	—	—	—	—	—	101.4	—	—
Other (R13; R18 except cancer control; R21; R24; R25; S03; DRR R01, R23)	33.1	33.8	—	61.8	—	37.7	6.2	35.2	29.9	73.8	17.4	9.9
Contracts (N01)	122.6[‡]	279.8[‡]	—	306.0	62.0	159.9	76.8	179.2	182.8	325.2	76.3	144.9
Training												
Indiv. awards (F's except F09)	8.8	20.3	—	21.0	9.2	19.5	10.4	20.2	9.3	19.7	9.1	19.8
Inst'l. awards (T's except T09)	63.9	108.4	—	72.2	58.1	95.2	54.0	67.5	62.6	128.7	84.9	89.4

* Excludes NLM. Supplements to prior year grants are excluded from the base. [†]Founded in 1974, but funded with NICHD until 1976. [‡]Includes CC, DCRT, DRS, and OD.

(Continued)

Table 30 (Cont.)
AVERAGE SIZE OF NIH AWARDS BY KIND OF AWARD AND NIH COMPONENT, FISCAL YEARS 1971 AND 1981 *
(Thousands of Dollars)

Kind of grant	NIDR		NIEHS		NEI		NIGMS		NHLBI		NINCDS		DRR	
	1971	1981	1971	1981	1971	1981	1971	1981	1971	1981	1971	1981		
Research projects	\$ 52.9	\$ 83.9	\$ 57.6	\$110.2	\$ 41.6	\$ 93.1	\$ 61.1	\$ 90.7	\$ 60.0	\$ 124.2	\$ 36.4	\$100.1	\$ —	\$ —
Traditional (R01)	40.8	82.4	36.5	92.7	40.0	94.0	47.6	87.7	42.2	101.8	33.8	81.2	—	—
Research program projects (P01)	190.4	390.4	218.4	559.0	351.8	—	278.8	486.8	425.6	796.4	162.9	550.6	—	—
Other (R22, R23)	10.4	40.6	—	43.6	—	50.4	—	21.2	—	43.7	—	50.9	—	—
Research centers	851.3	1,147.3	508.3	685.9	133.8	148.7	470.7	583.9	483.6	1,059.1	223.8	671.9	328.2	606.3
Specialized (P50)	851.3	1,147.3	—	—	120.5	193.0	475.3	583.9	483.6	997.8	223.8	671.9	—	—
Core grants (P30)	—	—	508.3	685.9	253.2	145.1	—	—	—	—	—	—	—	—
General clinical (M01)	—	—	—	—	—	—	—	—	—	—	—	—	463.5	798.1
Comprehensive (P60)	—	—	—	—	—	—	—	—	1,280.6	—	—	—	—	—
Primate res. ctr. grants (P51)	—	—	—	—	—	—	—	—	—	—	—	—	1,497.2	2,400.6
Biotech. resource grants (P41)	—	—	—	—	—	—	—	—	—	—	—	—	237.9	420.9
Animal resource grants (P40)	—	—	—	—	—	—	—	—	—	—	—	—	65.8	140.7
Other (P20, R07)	—	—	—	—	—	—	364.8	—	—	—	—	—	—	—
Other research	22.7	32.9	21.4	35.9	28.2	46.6	23.0	35.9	26.8	54.6	22.8	41.9	121.0	84.3
RCPAs (K)	22.7	35.6	21.4	35.9	30.9	36.3	23.1	36.5	27.0	40.9	23.2	39.8	—	—
Biomed. res. sup. & dev. (S07, S08)	—	—	—	—	—	—	—	—	—	—	—	—	121.3	84.5
Cooperative clinical (R10)	—	—	—	—	—	80.9	—	—	—	4,600.6	—	—	—	—
Minority biomed. sup. grants (S06)	—	—	—	—	—	—	—	—	—	—	—	—	—	315.4
National organ site projects (R26)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other (R13; R18 except cancer control; R21; R24; R25; S03; DRR R01, R23)	—	20.8	—	—	7.3	7.7	9.1	30.8	16.9	21.3	15.0	104.7	106.6	11.0
Contracts (N01)	67.7	118.9	36.7	206.7	125.8	135.7	336.5	387.6	115.9	332.2	118.2	180.9	128.6	336.1
Training														
Indiv. awards (F's except F09)	11.0	19.6	9.5	19.2	13.8	19.2	7.1	19.4	13.1	19.8	10.4	19.2	10.5	19.0
Inst'l. awards (T's except T09)	57.1	79.6	74.1	129.0	61.2	75.0	83.7	155.8	48.1	106.5	52.9	76.6	39.1	65.3

See footnotes at beginning of table.

Table 31
INDIRECT COSTS OF NIH RESEARCH GRANTS BY TYPE OF PERFORMER, FISCAL YEARS 1971-1981*
(Dollars in Thousands)

Type of performer	1971			1975			1977			1979			1981		
	Total cost	Indirect cost		Total cost	Indirect cost		Total cost	Indirect cost		Total cost	Indirect cost		Total cost	Indirect cost	
		Amount	Percent		Amount	Percent		Amount	Percent		Amount	Percent		Amount	Percent
Total	\$619,907	\$129,287	20.9%	\$1,071,758	\$259,677	24.2%	\$1,345,118	\$347,494	25.8%	\$1,838,074	\$497,070	27.0%	\$2,205,276	\$629,906	28.6%
Public	270,050	58,099	21.5	463,500	106,401	23.0	567,232	133,775	23.6	792,966	194,131	24.5	949,040	239,676	25.3
Private	349,857	71,188	20.3	608,258	153,276	25.2	777,886	213,719	27.5	1,045,109	302,939	29.0	1,256,236	390,230	31.1
Higher education	502,594	107,556	21.4	868,406	212,728	24.5	1,078,672	279,969	26.0	1,490,918	406,997	27.3	1,785,591	514,841	28.8
Public	253,619	55,738	22.0	437,748	101,504	23.2	539,831	128,855	23.9	759,280	187,870	24.7	908,388	231,382	25.5
Private	248,976	51,818	20.8	430,657	111,224	25.8	538,840	151,114	28.0	731,639	219,127	30.0	877,203	283,458	32.3
Research institutes	45,321	9,177	20.2	83,609	23,270	27.8	117,608	36,060	30.7	170,408	53,042	31.1	205,590	67,086	32.6
Public	2,920	140	4.8	1,945	391	20.1	2,328	521	22.4	1,949	463	23.8	1,762	540	30.6
Private	42,402	9,037	21.3	81,664	22,879	28.0	115,280	35,539	30.8	168,458	52,578	31.2	203,828	66,546	32.6
Independent hospitals[†]	56,648	10,129	17.9	95,853	19,622	20.5	113,461	26,191	23.1	136,432	30,569	22.4	163,608	40,186	24.6
Public	9,319	1,828	19.6	18,900	3,803	20.1	17,564	3,533	20.1	21,615	4,875	22.6	25,774	6,568	25.5
Private	47,329	8,300	17.5	76,953	15,819	20.6	95,897	22,657	23.6	114,817	25,695	22.4	137,834	33,618	24.4
Other	15,344	2,425	15.8	23,891	4,056	17.0	35,378	5,274	14.9	40,316	6,462	16.0	50,488	7,793	15.4
Public	4,193	393	9.4	4,906	703	14.3	7,509	865	11.5	10,122	923	9.1	13,117	1,186	9.0
Private	11,150	2,032	18.2	18,984	3,354	17.7	27,868	4,409	15.8	30,194	5,539	18.3	37,371	6,607	17.7

*Excludes NLM, RCPAs, Cancer control, and BRS. [†]Includes government hospitals and those not owned by institutions shown above

NOTE: Represents indirect costs awarded as of end of fiscal year shown. Other time series on indirect costs, with different exclusions and different cutoff dates, have been distributed.

Table 32
CLINICAL CENTER DATA ON NIH BY COMPONENT, AND ON NIMH, FISCAL YEARS 1975, 1978, AND 1981

Component	Inpatient admissions			Inpatient days *			Length of stay†			Number of beds			Outpatient visits		
	1975	1978	1981	1975	1978	1981	1975	1978	1981	1975	1978	1981	1975	1978	1981
Total	4,939	7,063	7,582	114,587	126,890	111,480	23	18	15	519	514	504	77,719	73,236	99,388
NIH	4,772	6,746	7,268	98,219	105,218	94,466	21	15	13	445	445	436	74,307	69,965	93,750
NIA‡	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,248
NIAID	477	685	783	12,709	14,599	13,193	31	20	16	52	52	50	1,390	2,124	3,616
NIADDK	499	659	772	12,959	13,015	12,408	25	20	16	64	64	56	5,999	7,567	12,862
NCI	1,547	2,894	2,690	27,577	30,171	27,017	18	10	10	124	124	118	32,921	30,526	36,263
NICHD	301	320	680	6,039	6,157	8,236	19	22	12	20	38	46	4,971	2,774	6,098
NIDR	17	8	27	377	61	237	20	8	9	5	5	5	5,232	8,644	5,497
NEI	79	47	71	4,136	2,273	809	49	36	13	26	14	10	5,972	3,790	10,729
NHLBI	1,312	1,501	1,523	20,610	23,805	19,644	15	16	13	102	96	94	14,131	8,743	9,190
NINCDS	540	632	692	13,812	15,137	12,287	25	23	18	52	52	52	3,691	5,797	7,143
CC§	—	—	30	—	—	635	—	—	16	—	—	5	—	—	104
NIMH	167	317	314	16,368	21,672	17,014	93	71	55	74	69	68	3,412	3,271	5,638

* Summation of daily censuses. †Average length of stay of discharged patients (number of days). ‡Part of NICHD until 1974. §Clinical Center patients admitted to the Critical Care Medicine Department, which opened in 1979. ||A component of ADAMHA, not NIH; NIMH intramural research is performed at the NIH Clinical Center.

CHRONOLOGY OF IMPORTANT EVENTS IN THE DEVELOPMENT OF NIH PROGRAMS*

- 1836 Library of the Office of the Surgeon General (Army) established (now the National Library of Medicine).
- 1879 National Board of Health created by law (first Federal national medical research effort), 3/3.
- 1887 Laboratory of Hygiene for research on cholera and other infectious diseases founded at Marine Hospital, Staten Island, N.Y., under the Treasury Department's Marine Hospital Service.
- 1889 Public Health Service Commissioned Corps authorized, 1/4 (25 Stat.L.639).
- 1891 Hygienic Laboratory moved from Staten Island to Service headquarters, Washington, D.C.
- 1902 Marine Hospital Service changed to Public Health & Marine Hospital Service, 7/1 (32 Stat.L.712). Biologics Control Act passed, making Service responsible for biologics control and establishing Advisory Board (later to become National Advisory Health Council), 7/1 (P.L.57-244).
- 1912 Name of Public Health & Marine Hospital Service changed to Public Health Service (PHS), and research program expanded to include problems other than communicable diseases, 8/14 (37 Stat.L.309).
- 1918 Chamberlain-Kahn Act passed for study of venereal diseases, 7/9 (40 Stat.L.886). PHS makes first research grants to institutions.

* For greater detail, see *NIH Almanac*.

- 1921 Rocky Mountain Spotted Fever Laboratory established as field station of PHS, 9/20.
- 1922 Special Cancer Investigations Laboratory established by PHS investigators at Harvard Medical School, 8/1. Library of the Office of the Surgeon General (Army) renamed Army Medical Library.
- 1930 Advisory Board for Hygienic Laboratory becomes National Advisory Health Council, 4/9 (P.L.71-106). Under Ransdell Act, Hygienic Laboratory becomes National Institute of Health (NIH), and construction of two buildings and establishment of fellowship system are authorized, 5/26 (P.L.71-251). Narcotics Division changed to Division of Mental Hygiene, and investigation of causes, treatment, and prevention of mental and nervous diseases authorized, 6/14 (P.L.71-357).
- 1937 National Cancer Institute (NCI) established, with authority for research grants, fellowships, training, and assistance to States, 8/5 (P.L.75-244). Rocky Mountain Laboratory becomes part of NIH's Division of Infectious Diseases.
- 1938 National Institute of Health moves to land in Bethesda, Md., donated by Mr. & Mrs. Luke Wilson. First cancer research fellowships approved, 1/3.
- 1939 PHS transferred from Treasury Department to Federal Security Agency in Reorganization Act of 1939, 4/3 (P.L.76-19).
- 1943 NIH given bureau status in PHS, 11/11.
- 1944 PHS Act approved, providing NIH with general research authority, making NCI a part of NIH, and including provision under which Clinical Center was later established, 7/1 (P.L.78-410).
- 1945 Research grants extended, with central NIH responsibility.

- 1946 Division of Research Grants (DRG) created to assume transferred World War II projects and to operate program of extramural research and fellowship awards. National Mental Health Act passed, 7/3 (P.L.79-487).
- 1947 First training grants (NCI). DRG starts research fellowship program. Experimental Biology & Medicine Institute (EBMI) established by order of Surgeon General, 12/11.
- 1948 Under National Heart Act, NIH becomes National *Institutes* of Health, 6/16, and National Heart Institute (NHI) is established, 8/1 (P.L.80-655). National Institute of Dental Research (NIDR) established, 9/16 (P.L.80-755). National Microbiological Institute (NMI) formed, 11/1. Rocky Mountain Laboratory and Biologics Control Laboratory become part of NMI.
- 1949 National Institute of Mental Health (NIMH) established under authority of 1946 Act, incorporating Division of Mental Hygiene, 4/15. First issue of *NIH Record* published, 5/20.
- 1950 Two Institutes established under Omnibus Medical Research Act, (8/15, P.L.81-692)—National Institute of Neurological Diseases & Blindness (NINDB), 11/22, and National Institute of Arthritis & Metabolic Diseases (NIAMD), 12/29, the latter absorbing EBMI. Act gives Surgeon General authority to establish new institutes.
- 1953 PHS becomes a constituent of newly created Department of Health, Education, and Welfare (HEW), 4/11 (P.L.83-3). Clinical Center dedicated, 7/2.
- 1955 NMI becomes National Institute of Allergy & Infectious Diseases (NIAID), 12/29, by order of Surgeon General. Division of Biologics Standards (DBS) formed, assuming NMI's biologics control function. Division of Research Services (DRS) created. Cancer Chemotherapy National Service Center established, 4/1.

- 1956 Health Research Facilities Act passed, authorizing matching grants for research construction in non-Federal institutions, 7/30 (P.L.84-835). Medical Library becomes National Library of Medicine (NLM) under PHS, 10/1 (P.L.84-941).
- 1958 Division of General Medical Sciences (DGMS) created by order of Surgeon General, 7/16.
- 1959 Office of Administrative Management (OAM) formed, consolidating managerial responsibilities.
- 1960 PHS Act amended to provide for general support of research and research training programs in nonprofit institutions, 9/15 (P.L.86-798). International Health Research Act extends NIH international programs, 7/12 (P.L.86-610).
- 1961 Center for Research in Child Health created by Surgeon General in DGMS, 2/17.
- 1962 Division of Research Facilities and Resources (DRFR) established, 7/15. NLM moves to NIH reservation.
- 1963 Two Institutes established (authorized 10/1/62, P.L.87-838)—National Institute of General Medical Sciences (NIGMS), superseding DGMS, and National Institute of Child Health & Human Development (NICHD), 1/30. Health Research Facilities Act of 1956 amended, 9/24 (P.L.88-129).
- 1964 Division of Computer Research and Technology (DCRT) established, 4/16. Medical Literature Analysis and Retrieval System (MEDLARS) becomes operational at NLM.
- 1965 NIH Animal Center, Poolesville, Md., opens 5/27. Medical Library Assistance Act passed, 10/22 (P.L.89-291), authorizing NLM extramural programs. NHI Gerontology Branch transferred to NICHD, 12/2.

- 1966 Division of Regional Medical Programs (DRMP) created, 2/1, to administer the "Heart Disease, Cancer, and Stroke Amendments of 1965" (authorized 10/6/65, P.L.89-239). Division of Environmental Health Sciences (DEHS) established, 11/1. Advisory Committee to the Director, NIH, appointed, 11/9.
- 1967 NIMH becomes separate bureau of PHS, 1/1. Toxicology Information Program established at NLM, 1/1.
- 1968 John E. Fogarty International Center for Advanced Study in the Health Sciences (FIC) established. National Eye Institute (NEI) established, 2/26 (P.L.90-489). NINDB becomes National Institute of Neurological Diseases & Stroke (NINDS), 10/24 (P.L.90-639).
- PHS reorganized under Assistant Secretary for Health & Scientific Affairs, 4/1. Bureau of Health Manpower (BHM), formed in PHS the previous year, and NLM become components of NIH, 4/1. DRMP transferred to Health Services & Mental Health Administration, PHS. Lister Hill National Center for Biomedical Communications established at NLM.
- 1969 DRFR renamed Division of Research Resources (DRR) within BHM, 1/4. DEHS becomes the National Institute of Environmental Health Science (NIEHS), 1/12. NHI redesignated as National Heart & Lung Institute (NHLI), 11/10.
- 1970 DRR separated from BHM(E), 9/18. PHS Act amended, 10/30 (P.L.91-515); includes authorization of mission-related clinical training (as well as research training) by NIGMS and directives on advisory councils and committees. Family Planning Services and Population Research Act of 1970 enacted, 12/24 (P.L.91-572).
- 1971 National Cancer Program established, 5/22 (P.L.92-18). National Cancer Act of 1971, 12/23 (P.L.92-218). Sickle Cell Disease program initiated in NHLI.

- 1972 National Sickle Cell Anemia Control Act of 1972, 5/16 (P.L.92-294). NCI gains bureau status within NIH (under National Cancer Act of 1971). NIAMD becomes National Institute of Arthritis, Metabolism & Digestive Diseases (NIAMDD), 5/19 (P.L.92-305). National Heart, Blood Vessel, Lung, & Blood Disease Program established; bureau status for NHLI within NIH authorized, 9/19 (P.L.92-423). DBS transferred to Food & Drug Administration (FDA-PHS), where it becomes Bureau of Biologics, 7/1. National Cooley's Anemia Control Act passed, 8/29 (P.L.92-414). National Commission on Multiple Sclerosis Act passed, 10/25 (P.L.92-563).
- 1973 PHS reorganization establishes new agencies, 7/1: Health Resources Administration (HRA); Health Services Administration (HSA); Center for Disease Control (CDC); and Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA). Bureau of Health Manpower Education (BHME, formerly BHM) transferred to HRA, 7/1. (See current organization chart, page i).
- 1974 Sudden Infant Death Syndrome Act of 1974, 4/22 (P.L.93-270). Research on Aging Act of 1974 creates National Institute on Aging (NIA), 5/31 (P.L.93-296). PHS Act amended to revise research training authority, establish National Research Service Awards (NRSA) authority and National Commission for Protection of Human Subjects, 7/12 (P.L.93-348). National Cancer Act Amendments of 1974 establishes President's Biomedical Research Panel; extends indefinitely the research contract authority of Section 301 (h) of the PHS Act; provides that Director, NIH, shall be appointed by President with advice and consent of Senate; requires peer review of NIH grant applications and contract projects, 7/23 (P.L.93-352). Health Services Research and Evaluation Act of 1974 extends FIC authority, 7/23 (P.L.93-353). National Diabetes Mellitus Research and Education Act, 7/23 (P.L.93-354).
- 1975 National Arthritis Act, 1/4 (P.L.93-640). NINDS becomes National Institute of Neurological & Communicative Disorders & Stroke (NINCDS), 3/13. NIA established; Gerontology Research Center (Baltimore) transferred from NICHD, becoming NIA intramural arm, 7/6. National commissions for epilepsy and Huntington's disease established, 7/29 (P.L.94-63).

- 1976 Health Research and Health Services Amendments of 1976, 4/22 (P.L.94-278) includes authorization for broad-based genetic diseases research, and changes NHLI to National Heart, Lung, and Blood Institute (NHLBI). Arthritis, Diabetes, & Digestive Diseases Amendments of 1976 establishes National Arthritis Advisory Board; National Diabetes Board; National Commission on Digestive Diseases, 10/19 (P.L.94-562). NIH issues Guidelines for Research Involving Recombinant DNA Molecules, 6/23, with major revisions 12/22/78, 1/29/80, 11/21/80, 7/1/81, and 4/21/82.
- 1977 First NIH conference for technical consensus development sponsored (see Table 4). Ethics Advisory Board appointed.
- 1978 Federal Grant & Cooperative Agreement Act of 1977 establishes cooperative agreements as award mechanism, 2/3/78 (P.L.95-224). NIH Office for Medical Applications of Research (OMAR) established, 10/13. NIH and new HEW National Institute for Handicapped Research to coordinate studies, 11/6 (P.L.95-602). National Center for Health Care Technology (NCHCT) created in Office of the Assistant Secretary for Health; works closely with OMAR, 11/9 (P.L.95-623). National Toxicology Program established by Executive Order, 11/15.
- 1979 Committee on Federal Research Into the Biological Effects of Ionizing Radiation chartered, 6/8.
- 1980 HEW becomes Department of Health & Human Services (HHS), 5/7 (under Department of Education Organization Act, 10/17/79 [P.L.96-88]). HHS Health Research Plan issued, 12/80.
- 1981 NIAMDD renamed National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases (NIADDK) (under P.L.96-538, 12/17/80), with Advisory Boards and interagency coordinating committees for each area.
- 1982 NIADDK gains bureau status within NIH, 4/22.

ABBREVIATIONS

A & S — arts & sciences	ERDA — Energy Research & Development Administration
ADAMHA — Alcohol, Drug Abuse, & Mental Health Administration	FDA — Food & Drug Administration
AEC — Atomic Energy Commission	FFRDC — Federally Funded R&D Center
B & F — buildings & facilities	FIC — John E. Fogarty International Center for Advanced Study in the Health Sciences
BHME — Bureau of Health Manpower Education	FY — fiscal year: 10/1-9/30, starting 10/1/76 (FY 1977); formerly 7/1-6/30 (see TQ)
BRS — biomedical research support grants	GNP — Gross National Product
CC — Clinical Center	GRS — general research support grants to institutions
CDC — Centers for Disease Control	HCFA — Health Care Financing Administration
DBS — Division of Biologics Standards	HEW — Department of Health, Education, & Welfare
DCRT — Division of Computer Research & Technology	HHS — Department of Health & Human Services
DEHS — Division of Environmental Health Sciences	HRA — Health Resources Administration
DGMS — Division of General Medical Sciences	HSA — Health Services Administration
DPA — Division of Program Analysis	I/RD — Institutes & Research Divisions
DRG — Division of Research Grants	MBS — minority biomedical support grants
DRMP — Division of Regional Medical Programs	NCHCT — National Center for Health Care Technology
DRR — Division of Research Resources	NCHS — National Center for Health Statistics
DRS — Division of Research Services	NCI — National Cancer Institute
EBMI — Experimental Biology & Medicine Institute	NEI — National Eye Institute

NHI — National Heart Institute
 NHLBI — National Heart, Lung, & Blood Institute
 NHLI — National Heart & Lung Institute
 NIA — National Institute on Aging
 NIADDK — National Institute of Arthritis, Diabetes, &
 Digestive & Kidney Diseases (formerly NIAMDD)
 NIAID — National Institute of Allergy & Infectious Diseases
 NIAMDD — National Institute of Arthritis, Metabolism &
 Digestive Diseases
 NICHD — National Institute of Child Health & Human
 Development
 NIDR — National Institute of Dental Research
 NIEHS — National Institute of Environmental Health Sciences
 NIGMS — National Institute of General Medical Sciences
 NIH — National Institute of Health or (since 6/16/48)
 National *Institutes* of Health
 NIMH — National Institute of Mental Health
 NINCDS — National Institute of Neurological &
 Communicative Disorders & Stroke

NINDB — National Institutes of Neurological Diseases &
 Blindness
 NINDS — National Institute of Neurological Diseases & Stroke
 NLM — National Library of Medicine
 NMI — National Microbiological Institute
 NRSA — National Research Service Awards
 NSF — National Science Foundation
 OA — Office of Administration, NIH
 OD — Office of the Director, NIH or I/RD
 OMAR — Office for Medical Applications of Research
 OPPE — Office of Program Planning & Evaluation, NIH
 PHS — Public Health Service
 RCPAs — research career program awards
 R&D — research and development
 R01 — DRG code for traditional research projects grants
 P01 — DRG code for research program project grants
 TQ — transition quarter between old FY ending 6/30/76
 and new FY beginning 10/1/76

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